



AR51



Highlights

Operations Summary (in millions)

	1975	1974	% Change
Net sales	\$4,888.1	\$4,938.5	- 1.0 %
Depreciation	347.4	327.2	+ 6.2%
Research and development expenditures .	167.4	148.7	+12.6%
United States and foreign income taxes ..	475.3	528.5	-10.1 %
Net income	615.7	557.4	+10.4 %
Net income per share (in dollars)	6.65	6.03	+10.3 %
Average common shares outstanding	92,602,697	92,511,200	+ .1 %
Common stockholders	98,152	94,120	+ 4.3%
Employees	53,100	53,300	- .4%

Annual Meeting The 1976 annual meeting of stockholders will be held at 2 p.m. (EDT) Wednesday, May 5, in the auditorium of the Midland Center for the Arts, Midland, Michigan. A formal notice of the meeting, with a proxy statement and form of proxy, will be mailed to each stockholder separately from this report.

A copy of the Company's annual report to the Securities and Exchange Commission on Form 10-K will be provided without charge, when available, to any stockholder requesting it in writing addressed to the Secretary of the Company, 2030 Dow Center, Midland, Michigan 48640.

Cover: Construction workers lay STYROFOAM brand insulation material along the northern portion of the Alaskan oil pipeline project. More than 98 million board feet of STYROFOAM HI-40 insulation was buried underground and covered with two feet of gravel along the heavy equipment work path of the pipeline route to keep the permafrost under it from melting during the summer months. The work path insulated with STYROFOAM begins in the foothills of the Brooks Range, the northern most mountain range in Alaska, and approximately 125 miles to Prudhoe Bay on Alaska's north slope.

To our stockholders

1975 stands out for Dow.

We had another good year even though there was a worldwide recession that made such performance very demanding on our people.

I am especially proud of the productivity of our employees and how well everyone worked together. I have never before experienced such worldwide cooperation and dedication in the years I have been in business.

As I said in my talk to the stockholders in 1974, I have had a personal commitment to steady employment of Dow people. Our managers, and especially those in production, have for several years been planning what actions they could take to minimize layoffs in the event of a business slowdown. During 1975, our people responded, and we were able to get through the year with almost no layoffs due to economic conditions.

This steady employment capability also was the result of being lean before the recession and being able to obtain flexibility in work assignments all year long. It required cooperation throughout the organization, and 1975 was that kind of year for Dow.

I am also pleased to report the following results that highlight our 1975 activities:

We were able to maintain our sales volume during a tough business period and increase our net income.

We were able to increase our dividend to stockholders again.

We were able to maintain our global selling prices and even make some gains which were sorely needed to help us recover from the effects of greatly increased raw material and fuel prices.

We were able to continue our capital spending program so we can maintain our position as a reliable supplier in the years ahead and to continue to grow in the U.S. and abroad.

We were able to keep our financial position strong.

In 1975 we brought about organizational and many key management changes without losing effectiveness during this period of major business pressures. I would like to comment more fully on these two developments.

Dow Lepetit, our global pharmaceutical business, was integrated into Dow's geographic areas of operation — Dow U.S.A., Dow Canada, Dow Europe, Dow Latin America and Dow Pacific. This decentralization of the former Life Sciences business is another example that change is constant and a fact of life in Dow. These organizational moves and other developments are covered in the reports from our geographical areas.

The following are some of our key management changes:

Zoltan Merszei, president of Dow Chemical Europe S.A., and Earle B. Barnes, president of Dow Chemical U.S.A., were named executive vice presidents of the parent Company.

Paul F. Orefice, financial vice president and treasurer of Dow, was appointed president of Dow Chemical U.S.A., succeeding Barnes.

Clyde H. Boyd, president of Dow Chemical of Canada, Limited, was appointed president of Dow Chemical Europe S.A., succeeding Merszei.

G. James Williams, an executive vice president of Dow Chemical U.S.A., was named financial vice president of the Company, succeeding Orefice.



C. B. Branch, President
The Dow Chemical Company



Carl A. Gerstacker
Chairman, Board of Directors



Earle B. Barnes
Executive Vice President



Zoltan Merszei
Executive Vice President



Herbert H. Dow
Secretary

Robert E. Naegele, general manager of the Ag-Organics Department of Dow Chemical U.S.A., was named president of Dow Chemical of Canada, Limited, succeeding Boyd.

Malcolm E. Pruitt, research and development vice president of Dow Chemical U.S.A., was elected a vice president of the Company. Dow's research activities are featured in a special report on subsequent pages.

Herbert H. Dow was named a member of the executive committee of the board of directors.

I am proud that advancement of such people as these has become a Dow trademark as individuals perform to the best of their ability and have the freedom to reach out to obtain job satisfaction and personal fulfillment. We are dedicated to maintaining this freedom and the corresponding rewards.

We continued to make strides in our programs for increased opportunities for minorities and women as well as our product stewardship program.

The most unsettling thing to me during the year was our poor safety performance after we had the best safety record in the

Company's history in 1974. We are determined in 1976 and the years ahead to make progress in our safety performance at least equal to our other accomplishments.

In closing, I want to express my personal appreciation for the fine contributions of two men who are retiring from service on the board of directors. They are Robert B. Bennett, former treasurer, who resigned from the board at the end of the year to devote full time to his banking interests, and Melvin Calvin, Nobel Laureate and University of California professor, who will retire from the Dow board this spring upon reaching age 65.

As I said at the beginning of my report to you, we were able to achieve excellent results during hard times and I must put the credit for these accomplishments where it belongs — it belongs to our great Dow people.

C. B. Branch



G. J. Williams
Financial Vice President

Major economies of the world in 1975 switched suddenly from the previous year's extreme shortage situations to broad oversupply and inventory liquidation. Despite this, Dow was able again to increase its earnings while U.S. corporations overall showed declining profits.

Sales declined one per cent from \$4.94 billion in 1974 to \$4.89 billion in 1975.

Net income per share increased 10 per cent from \$6.03 in 1974 to \$6.65 in 1975.

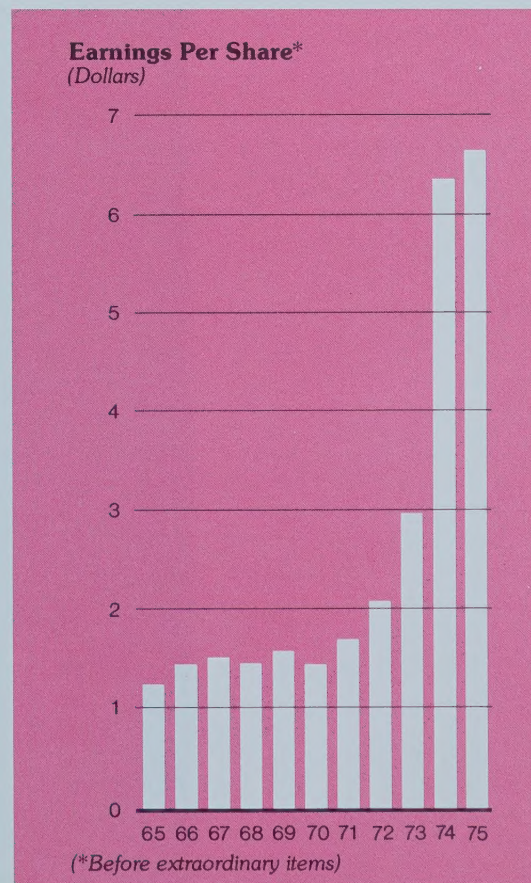
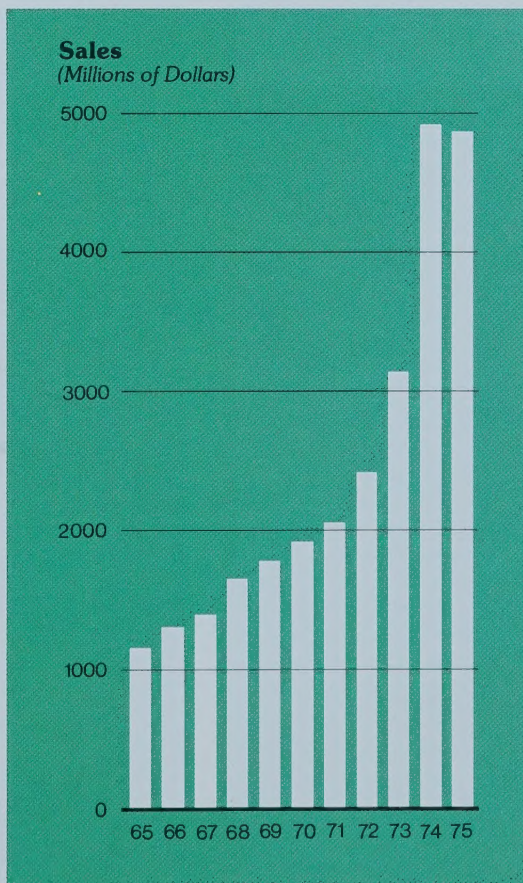
Among Dow's geographic areas, U.S. sales were the strongest, followed closely by Canada. Non-U.S. sales were 44 per cent of the Company, a slight decline from 47 per cent in 1974. The lagging of the European economic recovery relative to the U.S. was a major reason for this decline.

Dow's share of the sales of companies in

which our ownership ranges from 20-50 per cent totaled approximately \$720 million.

COSTS AND SELLING PRICES The price per unit of purchased hydrocarbon raw materials and fuels increased again in 1975, following an increase of over 100 per cent in 1974. Other costs such as labor, construction and transportation continued to climb. Wages and fringe benefits paid to our employees rose 10 per cent.

Dow's global selling prices at the end of 1975 were essentially unchanged from year-end 1974 levels and were about 10 per cent above the 1974 averages. In the past 20 years, Dow's selling price index has risen at a compounded rate of 1.8 per cent per year; while the U.S. price index for wholesale industrial commodities has had a growth rate of 3.5 per cent.



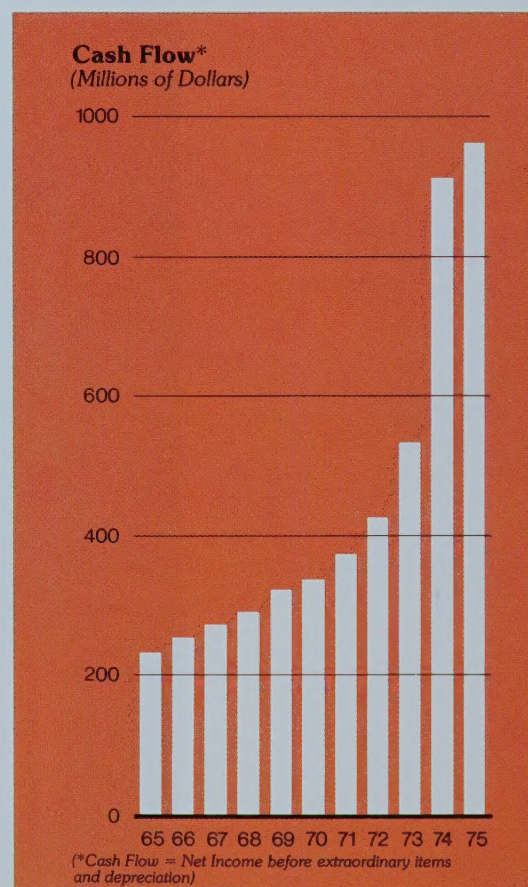
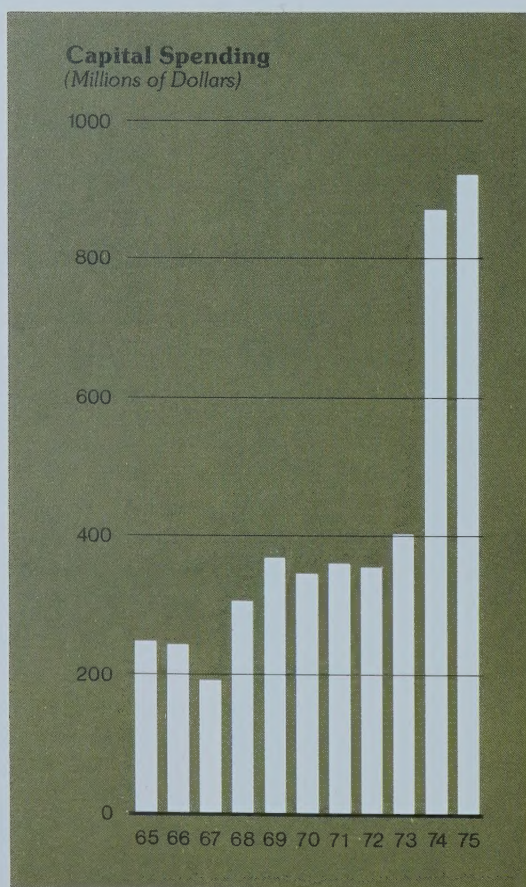
DIVIDENDS Dow increased its dividends during 1975 from \$1.10 per share to \$1.45 per share, a 32 per cent increase over 1974. Our dividend has increased in each of the last 16 years; and in 20 of the 25 years, including 1974 and 1975, the increase has exceeded the U.S. inflation rate. Dow has maintained its record of being the only U.S. industrial company, to our knowledge, never to have reduced its dividends since it began paying them regularly in 1911.

CAPITAL SPENDING In 1975 Dow's capital spending was \$922 million. Of the total spending, \$566 million was invested in the U.S.

Present expectations are for 1976 capital spending to be about \$1.1 billion. Continuing expenditures related to hydrocarbon feedstock supplies will be made to provide appropriate raw material security and minimize cost increases.

FINANCING Internal generation of funds was very strong in 1975. Cash flow (net income plus depreciation) was \$963 million. During the year the Company sold \$225 million of 8.5 per cent 30-year debentures. Other long-term borrowing during the year included \$97 million in pollution control bonds. These issues range from 5 to 30 years maturity with interest rates from 6 to 7.75 per cent. Net interest expense rose from \$80 million in 1974 to \$97 million in 1975. However, interest expense remained less than 10 per cent of profit before tax. Early in 1976 the Company also sold \$200 million of 8.5 per cent 30-year debentures, the proceeds of which will be used for future capital expenditures and working capital requirements.

Although total debt increased in 1975, the ratio of debt to debt-plus-equity has declined in each of the last four years. Additionally, our



financial position remains one of high liquidity. The Company has \$1 billion of unused credit lines.

OTHER ITEMS Dow employees continue to show a high degree of commitment to their company as exemplified by 44 per cent of our U.S. employees owning Dow stock. During the year, the Company purchased 501,513 shares of its common stock to help offset the increase in shares outstanding as a result primarily of stock sales to employees.

The participation of shareholders in the Automatic Dividend Reinvestment Program reached a new high in 1975 when an average 17 per cent of shareholders participated. This is among the highest participation levels of any U.S. company having such a program.

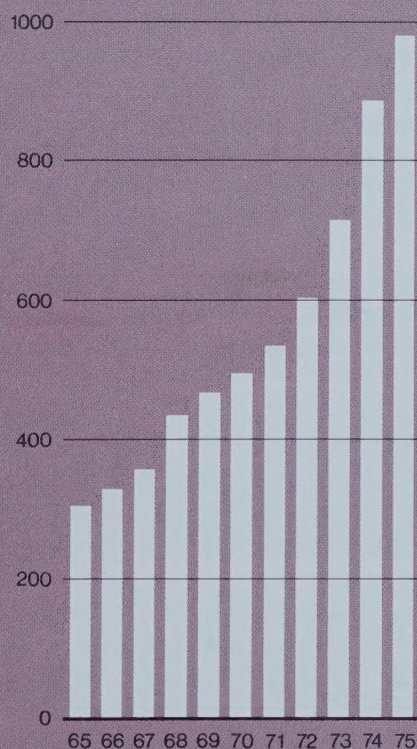
In February of 1976, the Company's board of directors voted to submit to stockholders for approval a proposed two-for-one stock split at

their annual meeting in Midland May 5. Stockholders also will be asked to amend the Company's certificate of incorporation to approve an increase in the number of common shares authorized from the present 200 million to 500 million shares.

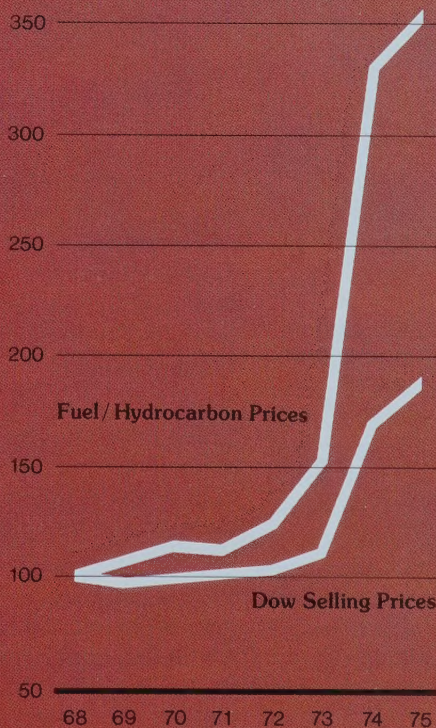
If stockholders approve the proposed split and the increase in authorized shares of the Company, new stock certificates would be distributed June 7 on the basis of one additional share for each share held at the close of business on May 5. The amendment to the certificate of incorporation also would change the par value of stock from the present \$5 to \$2.50 per share.

Recent distributions of Dow Chemical common stock occurred in 1973 with a one-for-one stock distribution and a one-for-two stock distribution in 1971.

Wages, Salaries & Benefits
(Millions of Dollars)



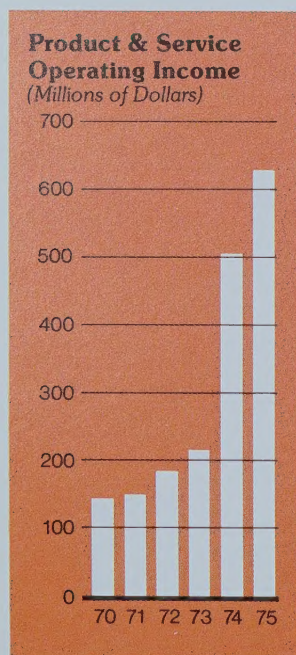
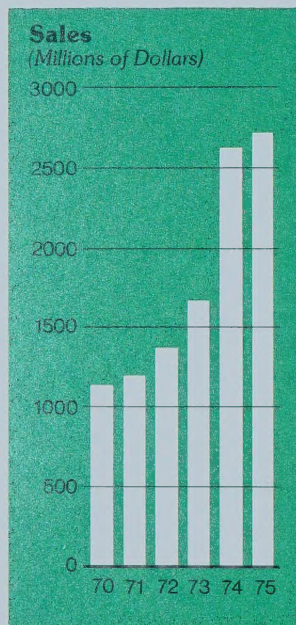
Fuel and Hydrocarbon/Dow Selling Price Index



(1968 = 100)



Paul Orefice
President
Dow Chemical U.S.A.



Dow Chemical U.S.A. operations in 1975, perhaps more than anything else, demonstrated the Company's commitment to job stability for its employees, as well as to continued good earnings and growth.

Employee morale was particularly high because the Company pledged steady employment to its people when recessionary trends first appeared. There were no layoffs in any *major* Dow division location in the United States. Total Dow U.S.A. employment at the end of 1975 stood at 31,200 employees, compared to 30,600 at the end of 1974.

In spite of the recession total sales for Dow U.S.A. improved in 1975 to \$2.724 billion, up from \$2.619 billion in 1974, representing a 4 per cent increase for the year and a 139 per cent growth over 1970. A decrease in physical volume shipped was offset by higher average selling prices.

Exports of U.S. manufactured goods were affected by the global recession. Export sales in 1975 were \$465 million as compared to \$549 million in 1974. While export sales were down, the manufacture of goods in the U.S. for sales overseas helped to maintain stable U.S. employment. During the year slightly more than 6,000 jobs in Dow's U.S. operations were provided from the export of U.S. produced goods.

Dow U.S.A. achieved its record of stable employment because of long-range planning to maintain a lean work force and provide job stability in both good and bad economic climates. In many instances, the Company was able to exercise flexibility in work assignments, temporarily assigning people to jobs normally performed by others and utilizing Dow employees in plant maintenance and construction.

Operating income in 1975 for Dow U.S.A. was \$629 million, an increase from 1974's total of \$503 million.

There were several other factors which kept Dow U.S.A. in excellent health and in a strong competitive position. These include substantial savings from process improvement, more efficient use of energy and sound marketing practices.

Safety performance was disappointing in Dow U.S.A. operations during 1975. There were 61 disabling injuries and 3 fatalities in 1975, exceeding the 38 disabling injuries and 3 fatalities that occurred in 1974. The Company strives diligently to achieve the goal of zero job-related injuries or deaths.

Capital investment was substantially increased despite the recession. It not only enabled the Company to maintain employment levels but also permitted expansion of the production base to accommodate anticipated business growth.

Development continued on a crude oil processing plant at the Oyster Creek Division capable of processing 200,000 barrels of crude oil per day to provide chemical feedstocks and energy alternatives for Gulf Coast operations. A major petrochemical complex at Pittsburg, California, is being considered as a source of petrochemical feedstocks for Dow U.S.A.'s Western Division.

Dowell Division, an oil and gas servicing operation, enjoyed the greatest growth period of its history in 1975. Sales for all major services — fracturing, acidizing and cementing — were at record highs. Sales from Dowell's relatively new services in mining and construction also set new highs.

Continued demand for more oil and gas production in the U.S., coupled with a relaxation of government controls on prices at the well

head, contributed significantly to Dowell's growth. New price incentives for producers greatly increased drilling activity. More drilling rigs were operating in 1975 in the U.S. than in any year since the early 1960's; while more new wells were drilled than in any year since 1966. Higher prices paid for oil from less productive wells encouraged operators to rework many existing wells using Dowell services. Increased activity resulted in Dowell building more new service units than ever before. Dowell Schlumberger Corporation, Dow's 50 per cent owned joint service venture for non-U.S. operations, experienced similar growth in 1975.

Dow U.S.A. further enhanced its "whole job" program during the year. This program is designed to develop decision-makers out of employees at every level as rapidly as they show the capability to do so. Employees are encouraged to plan their own work, to do it, and to evaluate it. There is every evidence, as the program has caught on, that productivity increases as does the quality of work.

Continuous progress has been made in moving women employees into managerial jobs, utilizing talent that has been overlooked in the past.

Recognizing that Dow provides increasing opportunities for minorities, the Energy Research and Development Administration of the U.S. Government praised Dow U.S.A. for its "excellent accomplishment by any standard . . . in EEO progress." A copy of the Company's EEO report is available upon written request.

Efforts continued in 1975 to increase the number of technically qualified minorities at Dow to better utilize their skills and talents. Dow works with the National Academy of Engineering, Committee on Minorities in Engineering, to identify and attract minority high school students interested in entering the engineering field and cooperates with several universities in encouraging minorities to enter disciplines related to the chemical industry.

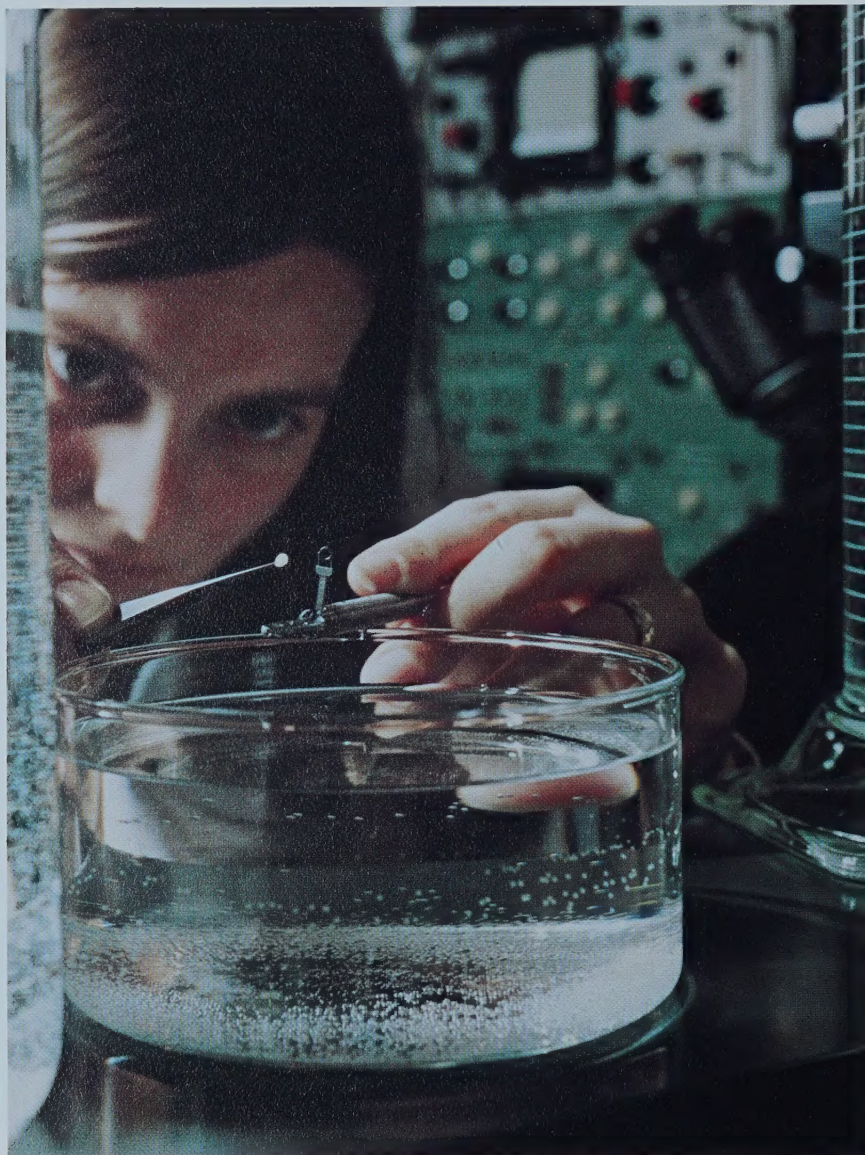
Significant efforts occurred in energy research and development in 1975. The Michigan Division has a small-scale continuous coal liquefaction pilot plant in operation, along with several supportive projects. Feedstock availability projections indicate the new energy source for Dow U.S.A. Gulf Coast operations in Texas and Louisiana in the early 1980's will



be lignite. During 1975 Dow acquired mining rights on large deposits of lignite in eastern Texas and northern Louisiana. These reserves are estimated to be capable of fulfilling a major portion of Dow's Gulf Coast energy requirements for the next 50 years. Cost advantages are expected to be gained from these reserves due to their proximity to the Company's major U.S. energy consuming divisions. Western Division research continues work in the exploration and utilization of hot geothermal brines for power production and is exploring other longer term potential energy sources.

Health and Consumer Products registered strong gains in sales and profits with Saran

The Flying Diamond II, a workboat operated by the Dowell Division of Dow Chemical U.S.A. services a jackup drilling rig in the Gulf of Mexico.



A research chemist in the toxicology laboratory of Dow U.S.A. Central Research, located in Midland, Michigan, conducts an analysis of water using a Dow developed and EPA approved method of determining whether asbestos fibers are suspended in water.

Wrap household plastic film, *Handi-Wrap* household plastic film and *Dow* bathroom cleaner maintaining strong leadership in their product categories. Additional production capacity coming on stream in mid-year allowed *Ziploc* plastic storage bags to also attain a number one position. Approval of the new drug application for *Novafed* decongestant capsules in October and introduction of *Novahistine DMX* cough and cold preparation will contribute to continued growth of our major cough and cold line in pharmaceutical products.

Diagnostics products continued its excellent growth pattern with volume from several new tests adding to a strong performance of existing product lines.

Sales performance by associated companies was restricted by the recession. Dow Corning Corporation, a company owned jointly by Dow and Corning Glass Works, attained sales of \$267 million, a 4 per cent decrease compared to record 1974 sales of \$278 million.

Capital expansion by Dow Corning in 1975 will help to meet the anticipated need to double the silicone industry's production facilities within the next five years. Nearly \$10 million was spent to reduce pollution.

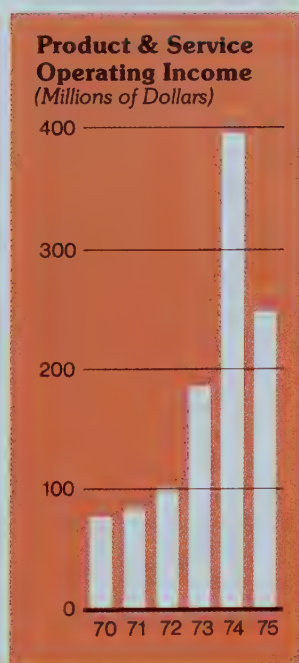
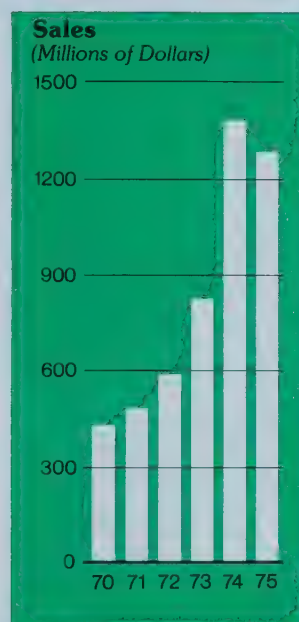
Cordis Dow Corp. increased its share of the global artificial kidney market to about 10 per cent with total sales of \$29 million.

Dialysystem artificial kidney system was introduced this year in the U.S. and overseas markets. During 1976, Cordis Dow will complete the creation of full-time operating management of the company on a global basis.

Dow Badische Company, manufacturer of chemicals, fibers and yarns, 50 per cent owned by Dow, reported annual sales of \$277 million in 1975. This decline from the previous year's \$315 million in sales is attributed to a softening textile market.



Clyde Boyd
President
Dow Europe



After more than 20 years of rapid growth, Dow Chemical Europe felt the effects of the most serious recession which the continent and the United Kingdom had experienced since the 1930's. Dow Europe's sales declined from the previous year. However, considering the European economic climate, the organization performed well. Sales for the year were \$1.273 billion, down 8 per cent from \$1.389 billion in 1974 and operating income was off by 37 per cent from 1974's all time high.

The physical volume of sales decreased, as did average selling prices. During the second half of the year Dow Europe began a program to increase prices to levels which would justify manufacturing expansions.

At the year's end, due to early controls on hiring, Dow Europe was still maintaining steady employment, in contrast to many other companies in Europe which found it necessary to impose layoffs and shortened work hours due to the recession. Total employment at December 31st was approximately 12,000, essentially the same as in 1974. More than 99 per cent of all area employees are European nationals.

Despite the commitment to safety of employees as a prime concern, Dow Europe did experience 12 disabling injuries.

Among product groups, agricultural chemicals emerged as the stand-out performer. Demand for *Dursban* insecticide, *Dowpon* herbicide, and a variety of fumigants was at a particularly high level. Among chemicals and plastics, strong performers included carbon tetrachloride, caustic soda, *Chlorothene* solvent, high density polyethylene, and a number of styrene-butadiene latex coatings.

During the latter part of the year, the management structure of Dow Lepetit was integrated with the management of Dow in every country. In addition, global commercial and research coordination for pharmaceutical products was established at the headquarters of Dow Chemical Europe in Horgen, Switzerland.

Dow Lepetit sales in Europe exceeded 1974's performance in spite of a very soft market for bulk pharmaceutical chemicals. A piece of good news came near year's end from Mexico, where the Committee on Treatment of the International Union Against Tuberculosis held a series of meetings during which *Rifadin* antibiotic was confirmed as a first-line drug for the treatment of tuberculosis. Results of a number of clinical investigations were presented which suggested the possibility of utilizing the drug for shorter treatment periods in developing countries where cost is critical.

Dow Europe produced locally 85 per cent of the products sold. With present and planned expansions, it is expected that this will increase gradually throughout the decade.

In anticipation of increased demand for Dow products during the remainder of the 1970's, expansion of manufacturing capacity continued. Production capabilities were increased in West Germany, The Netherlands, Spain, France, the United Kingdom, Greece, Italy and Sweden. A new plant for the manufacture of polyethylene was opened at Tessenderlo, Belgium.

A significant expansion plan was announced at the Company's facility at Terneuzen, The Netherlands. An agreement for construction of a harbor and industrial site west of Terneuzen was signed between the government and Dow Chemical (Nederland) B.V. The total program of activities will involve an investment of over \$250 million and will provide approximately 600 jobs. The project includes construction of a harbor for vessels of up to 60,000 tons and development of an industrial site of 285 acres.



A biological oxidation facility to remove organic contaminants from process waste water at Stade, West Germany, was in operation throughout 1975. The waste water was thus made suitable for re-cycling in the large chemical complex.

Expansion also proceeded in Eastern Europe. Construction of a polystyrene plant at Zagreb, Yugoslavia, which Dow is building jointly with Organsko Kemijska Industrija (OKI), is scheduled for completion in 1977. Plans are also being advanced for the construction of a major petrochemical complex at Rijeka, Yugoslavia. The facility would be built in three phases with start-up times beginning in 1979 and final completion in 1982. Products would include low and high density polyethylene, vinyl chloride monomer, styrene and ethylene.

In 1974, Dow Europe announced preliminary negotiations for plants in both Saudi Arabia and Iran. Negotiations continued in 1975 for possible joint ventures in ethylene, benzene and other petrochemical derivatives.

Business in the area showed a number of

significant bright spots in spite of the lingering recession. For example, sales in the Middle East, Central Africa and the Eastern European countries held up well.

There were also a number of technological success stories in 1975. For example:

Control of weeds in cereal crops has been a major research target for the Dow Europe Research and Development group at King's Lynn in the United Kingdom. Members of the group established that the new Dow product, *Lontrel* herbicide, gave enhanced broad leaf weed control in small grain crops when used in mixture with certain commodity herbicides. During the year, Dow Europe became responsible for global leadership in the development of *Lontrel*, and field trials were extended into 15 countries in the European area.



An agreement for construction of a harbor and industrial site west of the Dow Europe facilities at Terneuzen, The Netherlands, was signed. The project includes construction of a harbor in this area for vessels of up to 60,000 tons and development of an industrial site of 285 acres.

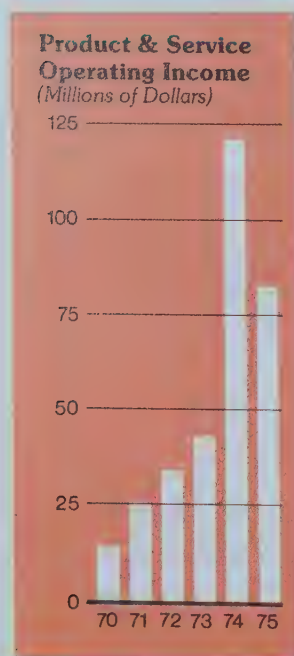
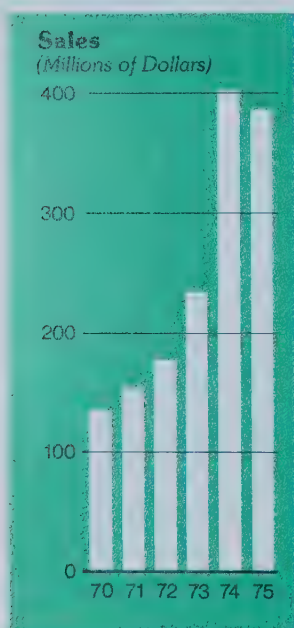
Significant crop increases were demonstrated, and near year's end, the first product registration in the world for this new herbicide was obtained in the United Kingdom.

Dowell Schlumberger identified a market for high density, solids-free drilling fluids which are highly useful in the North Sea and West African offshore oil areas. An important constituent of these fluids is calcium bromide, a longtime Dow product. The fluids are able to effect considerable savings for oil companies in comparison to traditional systems.

A well-established roof structure utilizing *Roofmate* roof insulation above the weatherproofing membrane instead of below it, as in conventional roofs, gained broader use throughout Europe.



Dave Schornstein
President
Dow Latin America



In varying degrees, the global recession of 1975 depressed the level of economic activity in most of the countries in which Dow Chemical Latin America operates.

Exports from the area, which are closely correlated to the level of economic activity, declined while imports of oil (\$3 billion in Brazil alone) and capital goods continued to increase, creating significant deficits in the balance of trade in many of the countries. Local governments responded by severely restricting the importation of many foreign-produced goods.

Inflation was present in almost every country, reaching massive proportions in Argentina (310 per cent) and Chile (350 per cent). Measures adopted by most of the countries to curb inflation were ineffective and contributed to the deceleration of the rate of economic growth for the area.

The Dow Latin America marketing organization successfully adjusted prices in most product lines. Physical volume of shipments declined modestly from 1974 levels. For the year Dow Latin America recorded sales of \$387 million, off just 4 per cent from 1974, and operating income of \$82 million, down 33 per cent from the year before. Of the goods sold, 52 per cent was produced locally.

Dow Latin America management recognized that 1974 would be a difficult year to surpass, given the economic realities apparent by early 1975. For the six-year period 1970-1975, sales grew at a compounded annual rate of 24 per cent while operating income increased at an annual rate of 41 per cent.

Dow Latin America suffered its first fatality in a drilling accident in northeast Brazil. Overall, safety performance for Dow Latin America was good.

The year was one of change as well as consolidating and upgrading businesses. Among the most significant steps taken were: 1) expansion of the Brazil Region marketing capability, including five new sales offices, in anticipation of the completion of the Aratu complex; 2) integration of the Dow Lepetit business into Dow Latin America operations; 3) a significantly increased commitment to personnel training; and, 4) sale of various holdings in Latin America in an effort to streamline the business.

Two product lines fared particularly well in 1975. Sales of *Tordon* herbicides and *Voranol* polyols, especially in Brazil, increased substantially.

The Aratu complex in northeastern Brazil on the Atlantic Ocean is on schedule, planning a start-up of chlorine and propylene oxide units by late 1976. Capital spent at Aratu in 1975 totalled \$56 million. The relative remoteness of the Aratu site led Dow Latin America manufacturing people to find innovative answers to problems. One is a 28-mile pipeline from the salt wells on Matarandiba Island to the plant site. Three-fourths of the pipeline is laid under the Bay of Bahia in water ranging from 10 to 100 feet deep. The pipeline was built in 45 days at a cost of \$10 million.

Additional manufacturing achievements were the completion of facilities for *Voranol* polyols at Guaruja, Brazil, the shutdown of the Sao Paulo polystyrene plant in favor of a new facility for *Styron* polystyrene at Guaruja, process improvements on the plant for *Separan* flocculant in Mexico, new insecticide formulations facilities at Cartagena, Colombia, and expanded product capability at Petroquimica-Dow S.A. in Concepcion, Chile.

Dow Lepetit operations were upgraded through emphasis on pharmaceutical, diagnostic and medical-surgical product lines while



Geography alone presents formidable problems in distributing Dow products in Latin America. Convoys across the Andes from Osorno, Chile, to Bariloche, Argentina, fight winter snows and mountain roads through the Cordillera Pass.

phasing out of others, consolidation of field sales forces, tighter expense control, pruning of some 30 products and increased pricing effectiveness.

Perhaps the most substantial gains by Dow Latin America in 1975 were in the development of human resources. An expanded training effort resulted in the first product sales manager seminars, its first management skills laboratory, career orientation programs for women and graduation of the second marketing development program class during the year.

Dow Latin America is continuing its policy of maximizing the use of Latin American nationals in its operations. These nationals represent 95 per cent of total employees. Latin nationals from six countries spent more than 12,300 man-days training in the U.S. during 1975. About one-third of these trainees came to Dow Latin America headquarters at Coral Gables, Florida, with the remainder working at five Dow U.S.A. manufacturing locations.

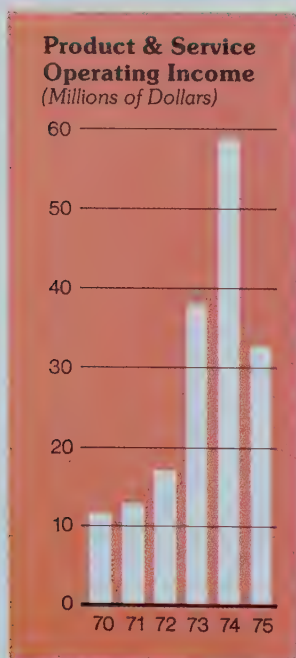
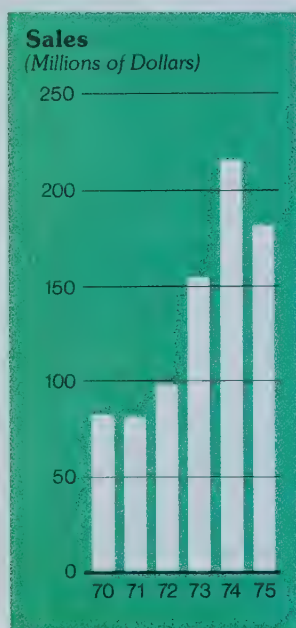
A 1975 decision with major long-term implications was the announcement of a \$4.5

million research and development laboratory to be built at Sao Paulo, Brazil. When completed in early 1978, this laboratory will employ 100 professional people and another 40 support personnel who will emphasize technical service and applications research for Argentina, Brazil, Chile, Paraguay and Uruguay. The personnel will concentrate on products which will be locally produced in those countries. These include *Voranol* polyols, *Styron* polystyrene, agricultural chemicals, epoxy resins, styrene-butadiene latex and chlorinated solvents.

This organization is known as "R & D South" and like so many other parts of Dow Latin America, is a genuinely international organization already. Its technical director is from the United States and the four section managers include a Colombian, a Chilean, an Argentine and an Italian-born Ph.D. chemist who did post-graduate work in the U.S., moved to Brazil, joined Dow and eventually became a Brazilian citizen.



Robert Lundeen
President
Dow Pacific



The year 1975 was an exceptionally challenging one for Dow Chemical Pacific. The recession affected most countries of the area, but it was particularly severe in the industrialized countries. Sales were down nearly 16 per cent and operating income decreased 44 per cent from record 1974 levels. The amount of product sold that was produced locally by Dow Pacific was 37 per cent compared to 30 per cent in 1974.

The decline in sales was traceable to loss of volume, as prices were maintained in most product lines and even increased in some, consistent with a pricing philosophy which reflects the need for cost recovery and suitable product profitability to allow for expansion.

Dow Pacific employees are particularly proud of the fact that they did not experience a disabling injury in 1975. To assist employees in maintaining this fine safety performance, full-time professional managers of safety and of environmental health were appointed during the year.

There was increased emphasis on sharpening the skills and challenging the talents of Dow Pacific employees, especially women. More than 250 employees, or one-sixth of total employment, took part in training programs in 1975. Fifty women held 8.9 per cent of the professional level jobs in 1975. This compares favorably to 8.5 per cent in 1974 and 7.5 per cent in 1973.

After a careful appraisal of the post-Vietnam war political situation, it has been determined that it is to the shareholders' benefit to continue an active program of investment in selected Asian countries. Commercial opportunities for diversifying and strengthening the business base still abound, and several means are available for insuring against unusual political risks. Dow Pacific spent more than \$20 million on capital projects in the year. Production capacity rose with the startup of a plant for *Dowpon* herbicide in Medan, Indonesia, and brake fluid formulation at Kuala Lumpur, Malaysia. A further increase in local capacity is scheduled early in the second quarter of 1976, with the startup of the 70,000-metric-ton plant for *Styron* polystyrene in Hong Kong.

Design work was begun and land was purchased for a 15,000-metric-ton plant for *Styron* polystyrene to be built near Bangkok, Thailand.

Engineering design was begun on two major new ventures in Korea during the year. A chlor-alkali facility at the new industrial site of Yeo-Su, on the southwest coast, will be built by a 100 per cent Dow-owned subsidiary, Dow Chemical Korea, Ltd. Also at Yeo-Su, ethylene dichloride, vinyl chloride and low density polyethylene production plants will be built by the 50 per cent Dow-owned Korea Pacific Chemical Corporation to supplement existing capacity at Ulsan, 100 miles from Yeo-Su.

In Japan, government approval has been given to a 100 per cent Dow-owned subsidiary, Dow Chemical Japan Limited, to manufacture a variety of chemical specialties. Land purchase arrangements for a site near Nagoya are being completed. Still pending with the government is Dow Chemical Japan's application to manufacture chlorine and caustic soda.

Negotiations are proceeding satisfactorily on a proposed large-scale petrochemical and chlorine-based production complex in Indonesia.

A new bulk liquid storage terminal in Singapore greatly improved Dow Pacific's ability to serve customers in southeast Asia as well as to supply its own plants with raw materials more economically.

A research and development laboratory was completed at Gotemba, near Mt. Fuji, Japan; and in Kuala Lumpur, Malaysia, work has begun on a tropical agriculture field research center to serve the entire area. A field



The Waireka Research Station of Ivon Watkins-Dow in New Zealand is an integral part of the Company's year-around field testing network for agricultural products.

network for agricultural research stretches from New Zealand to the Philippines, aiding countries in the area in achieving greater self-sufficiency in food production.

There are encouraging signs that our expanded research and development efforts in the Pacific area are paying off in increased demand for Dow's new products. For example, Dow Pacific was hard-pressed to meet the growing demand in Taiwan for our new polystyrene resins containing flame-retardant additives for use in television sets and other appliances. The market introduction of new *Methocel* methylcellulose thickening agents in Japan progressed rapidly, especially in the construction and paint industries. *Dursban* insecticide in Indonesia and *Reldan* insecticide in Korea showed outstanding growth.

The pharmaceutical business was marred by severely depressed prices for chloramphenicol; on the other hand, *Rifadin* antibiotic registered a strong performance.

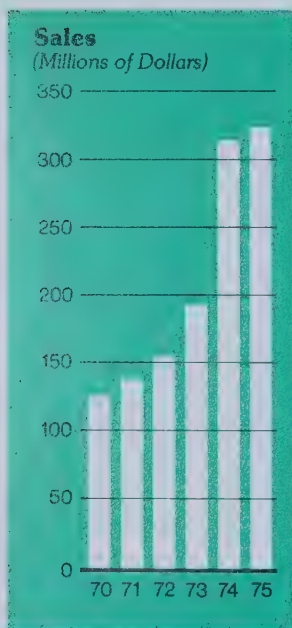
Dow's 20-50 per cent owned companies in the Pacific area were also hit hard by the recession. However, Consolidated Fertilizers Limited, based in Australia, showed significant

profit improvement, and Korea Pacific Chemical Corporation had another fine year of capacity operation with excellent financial results. These 20-50 per cent owned companies employ more than 6,000 people and operate 26 plants in four countries. They spent more than \$40 million on various plant expansions in 1975.

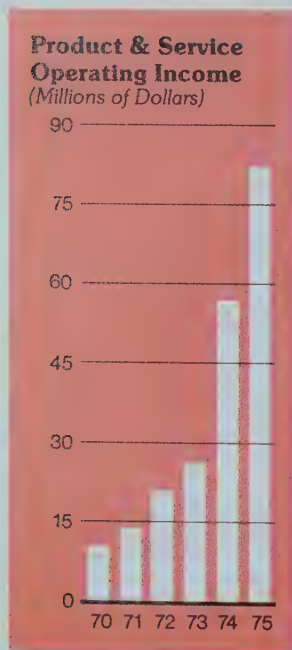
Several indications of business recovery appeared in the latter part of the year. Plastics sales were increasing significantly at firmer prices in important markets such as Hong Kong and Taiwan. With a few exceptions, industrial product inventories had been significantly reduced to much more reasonable levels than those of the first quarter of 1975. Anti-recession measures initiated by the Japanese government should stimulate economic growth in that important market in 1976.



Robert Naegele
President
Dow Canada



*Cap spending - excl west Can
\$60-\$70m → cut to \$30m this year
77 next yr - probably less*



Through the performance of employees, Dow Chemical Canada achieved a 3 per cent increase in sales over 1974. Operating income increased by 44 per cent. This record was attained in spite of a high rate of inflation and rising costs for feedstocks and energy. To curb the inflationary trend, the Canadian government enacted wage and price control guidelines in October of 1975. The total impact of these actions has yet to be determined.

Recognizing the need to cover new plant replacement costs and to cover the rapid increase in the cost of raw materials and energy, the marketing organization successfully resisted price attrition in most product lines. Physical volume of sales declined from 1974, but price increases offset the volume decline. Of the goods sold, Dow Canada produced 77 per cent in Canadian facilities.

Even with a depressed economy and a national unemployment rate of 8 per cent, Dow Canada was able to maintain stable employment throughout 1975, paralleling the performance of the rest of the Company. Reflecting Dow's policy of employing nationals in foreign operations, more than 99 per cent of Dow Canada employees are Canadians. The advancement of Dow Canada women continued with new placements in field sales, environmental control, process engineering, and research and development.

In safety, continued emphasis resulted in a dramatic improvement in the manufacturing area... an accident-free, 3.9 million man hour year.

Inorganic, agricultural and organic chemicals showed the best sales growth.

Despite a soft year in the total plastics industry, the introduction of low density polyethylene by Dow Canada was an outstanding success.

With the energy crisis, *Styrofoam* extruded polystyrene foam continued to grow in sales volume, primarily due to the excellent insulating properties of the product. Sales were relatively successful in spite of a major construction industry strike which resulted in fewer housing starts.

More than \$63 million in capital investment for new plants and expansion of existing facilities helped increase domestic production capacity for supplying both Canadian and world markets.

A major aspect of the Canadian expansion program will be participation in a significant petrochemical complex in Alberta. Agreement was reached recently between Dow, the Provincial government of Alberta and three other companies to construct this complex which will be based on the manufacture of ethylene from ethane into derivatives. Dow, with one of the partners, will also jointly develop a 1,900-mile pipeline from Alberta to Sarnia, Ontario, to carry both ethane and ethylene.

Dow's investment in these projects will more than double its current gross plant properties in Canada.

In 1974, Dow Canada made a significant investment in a joint gas development and exploration program with Dome Petroleum Ltd. in western Canada with the objective of finding equivalent feedstocks for a world-scale ethylene plant. Since that time, more than 200 wells have been drilled, from the U.S. border to the Arctic Ocean, and significant reserves and land holdings have been added to those initially acquired.

Dow Canada purchased 49 per cent of Iroquois Chemicals Limited, in Cornwall, Ontario, to complement Dow's involvement in the total urethane chemicals business.



Computerized instrumentation at the Sarnia Division biological water treatment plant emphasizes Dow's continued commitment to environmental quality.

In Sarnia, the first Canadian plant to manufacture *Derakane* vinyl ester resins was brought on stream. Also, a new polystyrene production facility, incorporating the latest Dow technology, has doubled the present Dow Canada capacity.

At Thunder Bay, Ontario, plans were announced for Dow Canada's first production of sodium chlorate which, when coupled with chlorine and caustic soda, will provide a complete line of bleaching service to the pulp and paper industry. The plant is scheduled for completion in 1977.

Ground breaking was held in Varennes, Quebec, for a latex plant scheduled to be on stream in 1977. A mobile research and development laboratory was also located at

Varennes to provide latex technology services to the Quebec carpet industry.

In keeping with Dow's continued commitment to environmental control, \$2.8 million of capital projects for pollution control were completed at various plant sites.

Sarnia Division's plant beautification program received top level community recognition and, at Fort Saskatchewan, a combined green-belt and community beautification program is under way.



M. E. (Mac) Pruitt

This is the U.S. Bicentennial year, which has given rise to something of a mania for "taking stock" — looking at where we are and where we're going.

Pruitt: I'm sure we all want to celebrate the birth of U.S. independence appropriately and pay tribute to the forefathers of this great nation. And it is a good time to take stock, even though this has a somewhat different connotation for a company like Dow Chemical.

Why is that?

Pruitt: We're a globally oriented high technology company; this gives us a different perspective. The world is our world. We are today a part of many cultures, and this is largely a matter of perspective, as is the question of where we're going.

All right, where *are* we going?

Pruitt: "We" being The Dow Chemical Company?

Yes. Put another way, what's the purpose of Dow research?

Pruitt: The purpose of Dow research is to be

creative in the world of chemistry, with a very specific goal — the creation of products that will sell at a profit.

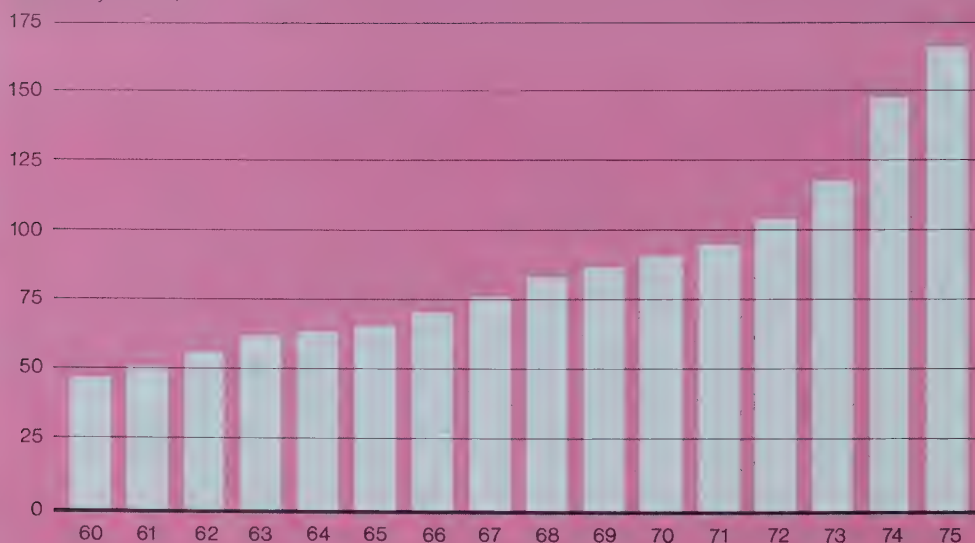
I like to say that research is people reducing ideas to practice. The result is the same.

But a lot of research today, in the environmental field especially, seems not to be very profit-oriented.

Pruitt: That's true. A large proportion of the research work done today is defensive — more than ever we have to prove that our products don't have a negative impact on people's health or on the environment. But this is just part of the challenge of doing business today. The challenge is to do this better and faster, and we at Dow are working very hard, investing large sums of money, to support our products.

We realize that products have to be acceptable from a health and environmental viewpoint. We also recognize that you can't expect to pursue a profit unless you are socially responsible, and can demonstrate consistently that you perform in a socially responsible way. There is no question about that; but beyond

R&D Expenses
(Millions of Dollars)



this, in the long run, the job of research is still to produce new products that will sell at a reasonable profit. Any research organization that loses sight of that, or any company that loses sight of it, for that matter, is in trouble.

The idea is still to invent that better mousetrap.

Pruitt: Yes, but it has to be a mousetrap that's ecologically sound and sociologically significant.

What does it take today to build a better mousetrap?

Pruitt: Money. Talented people. Commitment. Perseverance. Those are the main ingredients, I think.

What sort of talent do you look for in research people?

Pruitt: Well, a researcher today needs a peculiar combination of character traits. He — or she — needs to be highly sophisticated, perceptive, persistent. "Smart and dedicated" is the phrase that comes to mind.

How does he or she need to be sophisticated?

Pruitt: The research person needs to be sophisticated in knowledge; they need to know absolutely everything there is to know about their specialty. They need to be perceptive about the problem they're working on, which is necessary to make a fresh approach to the problem, uncluttered with preconceived notions about what might or might not work. The researcher needs to know processes, costs and markets, too.

You mentioned commitment.

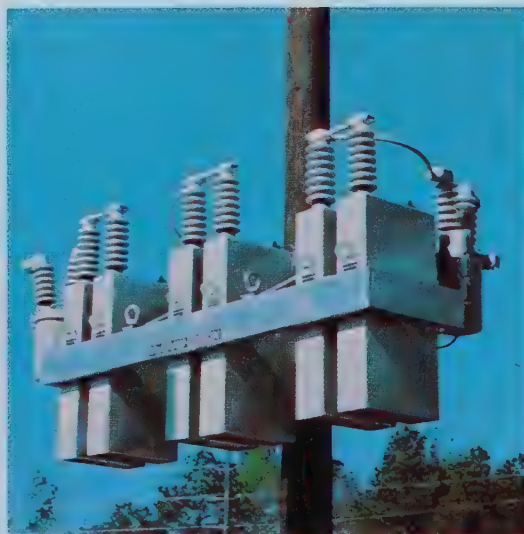
Pruitt: Yes. What I mean by commitment is essentially the management commitment, and in particular the commitment in our case of the Dow Board of Directors. We have a Board at Dow that has a real "feel" for research and development, a genuine understanding of what we're trying to do. I don't believe there are more than a half-dozen companies in the world with as close a rapport between research and the Board. This is important because it means we don't need to spend a great deal of time justifying the existence of research. We can report on what we're doing and what we've accomplished and what we propose to do, and they understand this.



One of Dow's top new products is Instant Set Polymer, a tough, rigid engineering plastic from which items such as these golf club heads can be molded in less than a minute



One of two national awards to Dow for "top 100 inventions of 1975" was won by the portable polarograph seen here, which analyzes chemical plant process streams, automotive exhaust, and air samples. In the past five years Dow and Dow employees have won 17 national awards for instrument developments and the Company has licensed 51 instruments ranging from laboratory apparatus to new analytical technologies to 44 different companies in the U.S. and abroad.



Late in 1975 Dow introduced a new environmentally safe capacitor fluid to replace polychlorinated biphenyls (PCBs), and it is now being developed jointly with McGraw-Edison, a major supplier of electrical equipment.



Another new Dow development in 1975 was Totalwall, an energy-saving insulated wall system combining Styrofoam plastic foam and fibrous glass into pre-constructed components with high thermal efficiency

That must be helpful at budget time, too.

Pruitt: At least we don't have to start from scratch. The fact of the matter, of course, is that we have spent more on research each year than we did the year before, for the last 16 years. I don't know of any other chemical company that can say this. That's what I mean by commitment—management commitment.

The “social responsibility” aspect of research is another aspect of commitment.

Pruitt: Yes, that's the other aspect of what I mean. Research today has to follow the new product all the way from its creation to its eventual disposal. At Dow we call this “product stewardship”, and it means essentially that we need to know what the product (or proposed product) will do to the people, the environment, the ecosphere, with which it will come in contact during its lifetime. What safeguards will be needed? Where can it be used safely and effectively, and where not? Will it pose disposal problems, of what kinds, and what can we do about them?

One of the main thrusts of our research effort in Dow these past few years has been that of “product stewardship”, which also carries through into the manufacturing and marketing operations.

This is a commitment to social responsibility, in sum.

Pruitt: It really is.

And has this commitment paid off? What's the proof of the pudding?

Pruitt: Over the years it certainly has. As a matter of fact, in my opinion Dow research has never achieved the recognition for innovation and accomplishment it deserves. Look at magnesium, which is still the only significant product being extracted from seawater on a commercial scale. Look at latex and the whole technology of latex paint and all the other uses of latex. Look at Styron polystyrene plastic, probably the most ubiquitous of all the plastics. Look at the whole family of Saran resins, with all its offshoots, such as Saran Wrap household plastic film. Look at Methocel methylcellulose and related products. Look at Tordon and Dursban pesticides. Look at Rifadin antibiotic which among other things may wipe out the need for tuberculosis clinics. When I start to tally it up I get excited and proud. All these things came from Dow research. This is one of the great records of research in any company in any era of history, to have produced all these advances.

The historical record is very impressive.

Pruitt: I really think so.

To what do you attribute this? Money, talent, commitment, perseverance, you said.

Pruitt: Let me talk about talent for a moment—about talented people. Dow has had some great scientists and it has great scientists today. We have the “double ladder” career route for scientific people and this has worked very well for us.

The “double ladder”?

Pruitt: We have two routes upward for research people—the administrative route, up through lab director to research manager, and then the professional ladder for people more interested in careers as professional research persons, and this second ladder has at its top a group of research scientists. We have 23 research scientists at Dow, all of them accomplished, distinguished, outstanding in their fields.

That's a huge amount of talent.

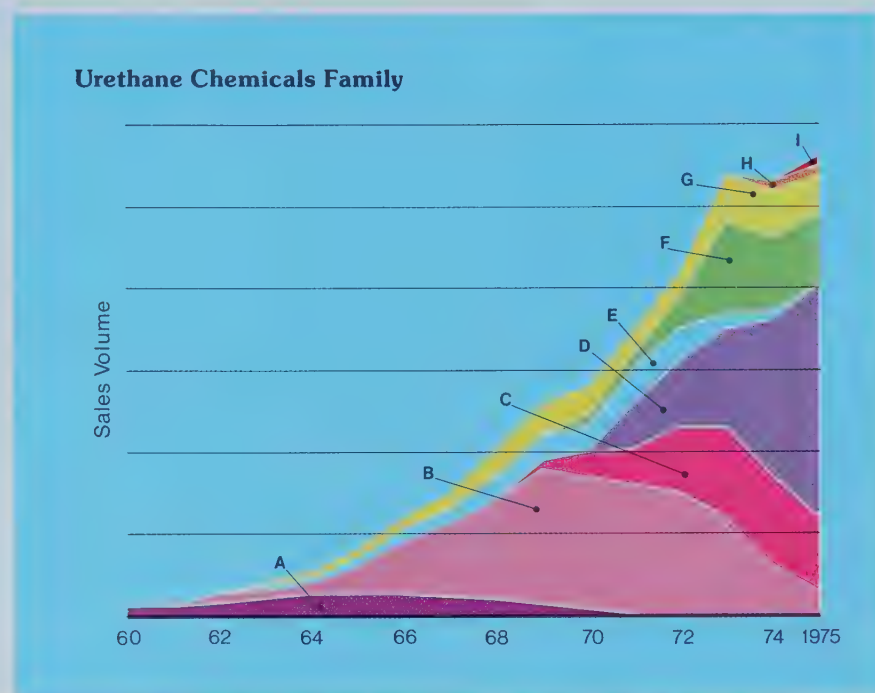
Pruitt: Let me speak of talent in another sense as well. Dow has an extraordinary talent for what might be called “evolutionary” research. We are constantly improving our products, refining them for particular uses, developing special forms of the product for some special use. Over a period of time the product may change entirely, even though it keeps the same basic name. This is the path we follow with a product such as latex; the basic product is almost 30 years old, but we’re still developing new uses, new varieties, new forms of latex. Three of our top 20 new products last year, for instance, were new chemical forms of latex. This evolution goes on in most of our product families — in polyethylene, polyols, polystyrene, methylcellulose, to name a few. If there were a World Series in product evolution Dow would win it every year, I think.

What are the major new trends in Dow research and development?

Pruitt: Well, for one thing we are tending to become more and more international in scope and in practice. This is simply a reflection of our being a globally oriented, high technology company, as I have mentioned. In the last year we started building new laboratories in Switzerland, in Japan, and in Brazil, for instance. Their purpose is primarily to design the application of existing Dow products to local use; modifications of these products are often necessary for safe, efficient use in another country. In the United States we’re building new laboratory facilities for our Eastern Division in Granville, Ohio, and for Central Research in Midland, Michigan. Perhaps the most significant new laboratory of 1975 was our new Toxicology Laboratory in Midland, which is now in full use. It is probably the best facility in the world for measuring the effect of chemicals on living things, and we are quite proud of that.

Do you agree with those who feel that research — chemical research — is just about an exhausted field, that there’s nothing much left to discover?

Pruitt: That’s about the last thing I would agree with. The challenge is certainly different, but the horizons and the opportunities are still in my view unlimited. We have a fantastically increased capacity to do research, as you



know; we can do things with computers and other new tools that would have taken many times the manpower and time a few years ago. A properly equipped researcher today, all by himself, can do the work of a 10 or 20-man laboratory of a generation ago, in some fields. How we use this vast increase in capability is the question, and it does alter radically the nature of the challenge to us.

The nature of the challenge to the research person changes with every new generation. The research problems we face today are different from those of past generations, and a generation hence they will be different again.

But the discovery of new things in chemistry is still in my opinion in its early chapters. I think that’s what’s exciting about it — we don’t know how far we can go. But if we have enough determination we’ll get there. And that’s another thing we have a lot of in Dow research.

What’s that?

Pruitt: Determination. We’ll stick to it until we do get there.

There being where?

Pruitt: New products we can sell profitably long term. That’s where we want to go. That’s where we’re going.

An example of product evolution is the urethane chemicals family, primarily Voranol polyglycols. Some products like A, B and E have declined from their peak sales. Others like C, F and G show stabilized sales. Overall, the total family grows consistently as new products evolve.

22 Dow research: another decade of accomplishment

Dow generates new products, year in and year out, at a rate of about one a month. Some are glamor items; most are not. Many respond to a need by other industrial firms or to some underlying problem of society; most are never seen by the housewife or shopper in the state in which they're sold by Dow.

Typical of Dow's new products last year was an item called "delayed gel hydraulic fracturing fluids". These fluids will help in the U.S. battle for oil independence by helping to stimulate production from U.S. wells which need to be "fractured" to increase their yield. A typical fracturing process involves pumping thousands of gallons of high viscosity fluids under tremendous pressure into the oil well, along with a porous material such as sand or beads; this "fractures" the oil formation and allows the oil to flow at a much increased rate. It is a process that requires energy in terms of horsepower plus capital equipment in tackage to blend and store the gel.

Dow's new "delayed gel" product is blended at the well head and pumped at low viscosity into the well. It is designed to gel at the bottom of the well just before entering the formation, significantly reducing the preparation time and horsepower required to accomplish the job. It is thus another of Dow's largely unseen contributions to the solution of human problems.

Most of the company's major research developments in the past decade have been keyed to important environmental and human needs:



Delayed gel fracturing fluids, new in 1975, increase oilwell production more quickly with less equipment

Top new products: *The Dow Chemical Company 1966-1975*

- *Rifadin* antibiotic, a totally new antibiotic effective against tuberculosis and other diseases
- *Chlorothene* solvent, an effective, environmentally safe solvent used in metal degreasing and other industrial uses
- *Lirugen* measles vaccine, the vaccine most used in a world-wide war to stamp out measles
- Artificial kidney, an easily portable kidney replacement using Dow's hollow fiber technology
- *N-Serve* nitrogen stabilizer, a product that binds nitrogen to plant root systems, thereby preventing fertilizer run-off from crops, keeping the nitrogen where it is useful and preventing the contamination of nearby streams or lakes
- Chlorinated polyethylene (CPE), a new family of plastics useful in pond liners and covering pipes.
- *Tordon* weed and brush killer used principally for forests and range lands, with a high environmental rating
- *Derakane* plastic resins, used most commonly in combination with fiber glass to produce tough, reinforced plastic articles
- *Ziploc* storage bags, available nationwide.
- Polyethylene D, an insecticide-impregnated plastic film used to bag

growing bananas, producing bigger, better bananas at less cost

- IRMA (Inverted Roof Membrane Assembly) roofing system, a revolutionary, new, less-costly system for applying roofing and insulation at the same time
- *Dursban* insecticide, an advanced ecologically sound pesticide for mosquitos and pests in cotton, rice, bananas, and other crops.

This selection of a dozen outstanding research developments by the Company over the last decade omits many products over this period that are also significant. Some examples: ECR (or electro-conductive resins); *Voraspring* support polymer composite plastic foam, the basis of new all-foam furniture pieces; *Saranex* multilayer plastic films; the urethane foam backing system for carpeting; and new creep-resistant magnesium alloys.

Geographic Results

(dollars in millions)

Sales	1975	1974	1973	1972	1971
United States	\$2,724.1	\$2,619.1	\$1,662.5	\$1,382.9	\$1,194.5
Europe/ Africa	1,272.7	1,389.3	827.5	591.1	485.3
Latin America	387.1	401.4	232.2	177.7	153.2
Canada	322.8	313.9	192.9	154.7	138.7
Pacific	181.4	214.8	152.8	97.3	81.0
TOTAL	\$4,888.1	\$4,938.5	\$3,067.9	\$2,403.7	\$2,052.7

Products and Services Operating Income

	1975	1974	1973	1972	1971
United States	\$ 628.8	\$ 503.4	\$ 215.5	\$ 185.2	\$ 149.1
Europe/ Africa	249.7	396.7	185.0	100.8	83.4
Latin America	82.2	122.5	43.7	34.4	25.9
Canada	82.1	57.0	26.2	20.9	14.1
Pacific	32.7	58.6	37.8	16.7	12.3
TOTAL	\$1,075.5	\$1,138.2	\$ 508.2	\$ 358.0	\$ 284.8

Gross Plant Properties

	1975	1974	1973	1972	1971
United States	\$3,126.5	\$2,616.3	\$2,177.7	\$1,984.1	\$1,807.6
Europe/ Africa	1,096.3	915.6	750.0	670.1	611.7
Latin America	216.2	135.0	75.9	62.8	76.7
Canada	430.8	373.8	267.1	242.4	210.8
Pacific	63.3	41.1	30.6	21.4	16.1
TOTAL	\$4,933.1	\$4,081.8	\$3,301.3	\$2,980.8	\$2,722.9

Capital Expenditures

	1975	1974	1973	1972	1971
United States	\$ 565.6	\$ 530.7	\$ 259.8	\$ 213.4	\$ 165.1
Europe/ Africa	185.2	170.6	87.5	88.0	158.3
Latin America	84.7	36.1	16.4	11.6	13.4
Canada	63.2	121.7	32.2	39.7	24.0
Pacific	22.8	10.9	5.8	6.3	3.8
TOTAL	\$ 921.5	\$ 870.0	\$ 401.7	\$ 359.0	\$ 364.6

Employees (thousands)

	1975	1974	1973	1972	1971
United States	31.2	30.6	29.5	28.9	28.0
Europe/ Africa	12.1	12.2	11.0	11.0	11.2
Latin America	5.4	6.2	5.3	5.3	5.0
Canada	2.8	2.8	2.5	2.5	2.5
Pacific	1.6	1.5	1.5	1.1	1.1
TOTAL	53.1	53.3	49.8	48.8	47.8

Product Group Results

24 (dollars in millions)

Sales	1975	1974	1973	1972	1971
Chemicals / Metals . . .	\$2,747.6	\$2,621.5	\$1,522.3	\$1,169.0	\$1,006.6
Plastics / Packaging . .	1,428.9	1,671.3	1,003.9	789.6	647.1
Bioproducts /					
Consumer Products	711.6	645.7	541.7	445.1	399.0
TOTAL	\$4,888.1	\$4,938.5	\$3,067.9	\$2,403.7	\$2,052.7

Product Group Analysis

Chemicals / Metals Group	Uses	Approximate % of Group Sales	
		1975	1974
Inorganic Chemicals		30	30
Major Products			
Bromine	Chemical intermediate		
Caustic soda	Production of paper, alumina, rayon, petroleum products and industrial chemicals		
Chlorinated solvents	Metal cleaning, dry cleaning, paint removers		
Chlorine	Chemical intermediate water treatment, paper		
Ethylene dibromide	Leaded gasoline, soil and grain fumigant		
Organic Chemicals		30	35
Major Products			
Acetone	Solvent, production of methyl methacrylate		
Ethylene glycol	Antifreeze, polyester fiber production		
Glycerine	Alkyd resins, tobacco products		
Phenol	Plastic resins and adhesives		
Propylene glycols	Polyester resins, pet food humectant		
VORANOL polyglycols	Rigid, elastomeric and flexible urethane products and foams		
Metals		10	10
Major Products			
Magnesium sheet, plate and extrusions	Commercial and military products		
Magnesium ingot	Aluminum alloys, steel processing		
Functional Products, Oil & Gas Division & Misc.		30	25
Major Products & Services			
Calcium chloride	Highway deicing & dust control		
Dow Industrial Service	Industrial equipment cleaning		
Dowell Division	Petroleum production services		
Wanda Petroleum	Trading and marketing of petroleum products		
Total sales (\$million)		100% \$2748	100% \$2621

Plastics / Packaging Group

Molding Materials	50	50
Major Products		
Acrylonitrile-butadiene- styrene (ABS)	Used in injection molding, blow molding and extrusion processes for fabrication of articles and in the automotive, appliance, packaging, wire and cable, housewares, toy and construction industries	
High density polyethylene		
Low density polyethylene		
STYRON polystyrene		

		1975	1974	1973	1972	1971	25
Products and Services Operating Income	Chemicals/ Metals . . .	\$ 693.9	\$ 620.8	\$ 206.5	\$ 156.3	\$ 123.9	
	Plastics/ Packaging . .	299.6	459.5	223.5	154.5	109.1	
	Bioproducts/						
	Consumer Products	82.0	57.9	78.2	47.2	51.8	
	TOTAL	\$1,075.5	\$1,138.2	\$ 508.2	\$ 358.0	\$ 284.8	

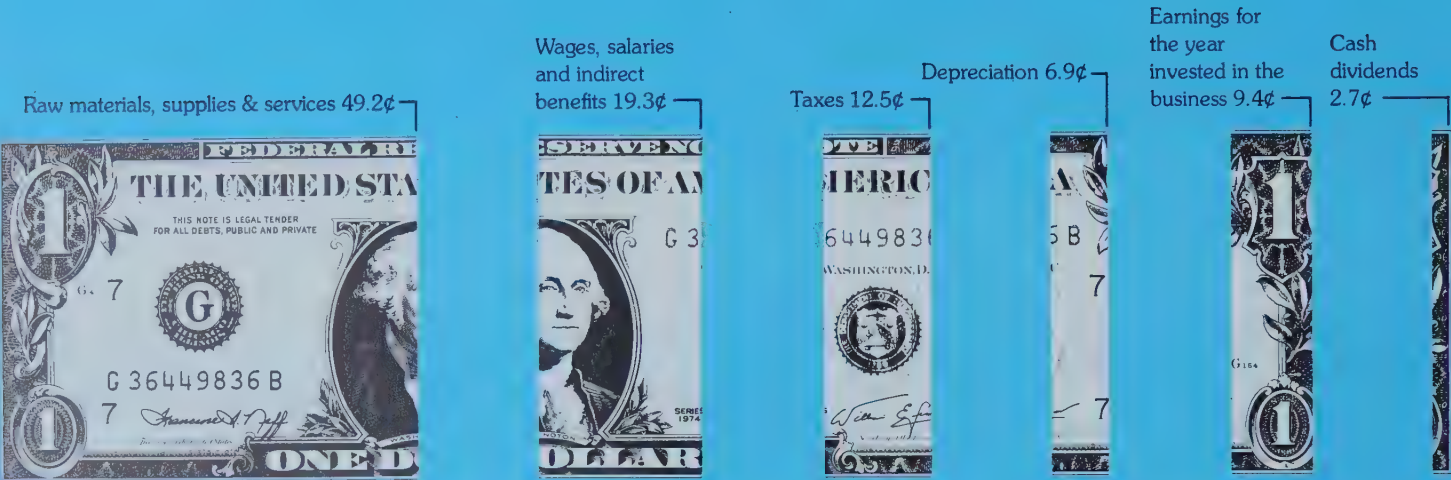
Plastics / Packaging Group (Cont.)	Uses	Approximate % of Group Sales	
		1975	1974
Coatings and Monomers		35	35
<i>Major Products</i>			
Epoxy resins	Coatings, adhesives, laminates		
Styrene-butadiene latexes	Paper and carpeting		
Styrene monomer	Production of polystyrene plastic		
Vinyl chloride monomer	Production of polyvinylchloride plastic		
Plastic Products		15	15
<i>Major Products</i>			
Polyethylene film	Industrial packaging, agricultural use		
Polystyrene film and sheet	Functional and decorative packaging		
STYROFOAM polystyrene foam . . .	Insulation, floral and craft uses		
SARAN film	Commercial packaging		
Total sales (\$million)		100% \$1429	100% \$1671

Bioproducts and Consumer Product Group

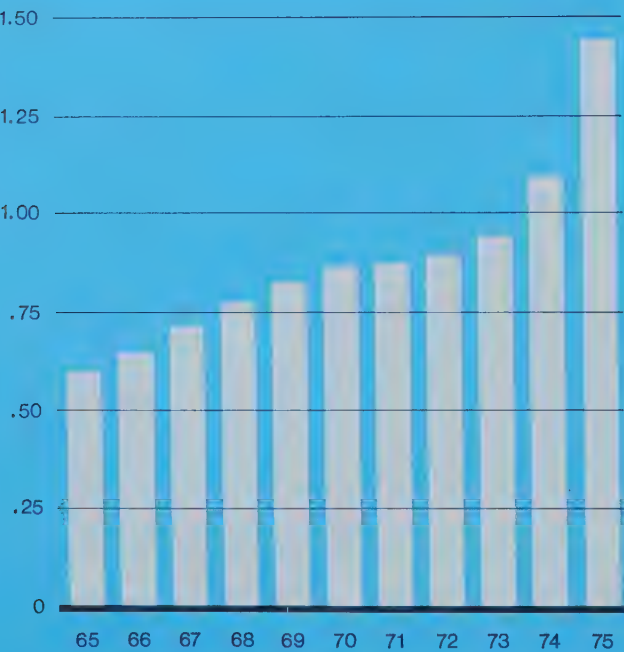
Health Care Products and Services		50	50
<i>Major Products</i>			
Diagnostic products and services . . .	Medical laboratory tests		
NOVAHISTINE products	Cough and cold preparations		
RIFADIN and RIFOCIN antibiotics . .	Broad spectrum antibiotics used primarily for TB treatment		
Agricultural Chemicals		40	40
<i>Major Products</i>			
COYDEN and ZOAMIX coccidiostats	Treatment of poultry disease		
DURSBAN insecticide	Broad range insecticide		
Phenoxy herbicides	Weed and brush control		
TORDON herbicide	Weed and brush control		
Consumer Products		10	10
<i>Major Products</i>			
DOW Bathroom Cleaner	Household use		
HANDI-WRAP plastic film	Household plastic film		
SARAN WRAP plastic film	Household plastic film		
ZIPLOC bags	Food storage		
Total sales (\$million)		100% \$711	100% \$646

Distribution of 1975 Income Dollar

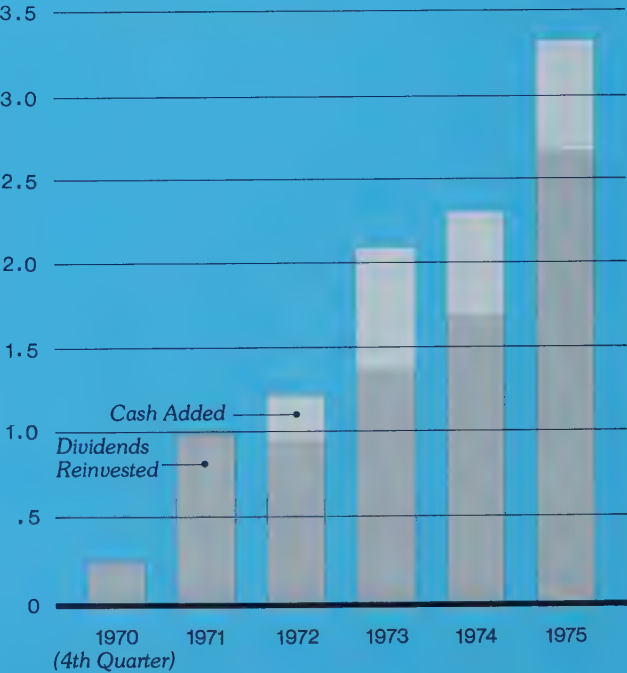
26



Dividends Paid Per Share
(Dollars)



Dividend Reinvestment Program
(Millions of Dollars)



Consolidated Statement of Income

	Year Ended December 31		27
	1975	1974	
Products and Services			
Net sales	\$4,888,114,202	\$4,938,483,020	
Operating costs and expenses:			
Cost of sales	3,398,903,047	3,394,710,898	
Selling and administrative	413,670,368	405,582,800	
	3,812,573,415	3,800,293,698	
Products and services operating income	1,075,540,787	1,138,189,322	
Non-Products and Services			
Investment and financial:			
Profit on investment turnover	20,836,713	1,248,805	
Income from sundry investments	716,482	1,147,946	
Equity in earnings of non-consolidated subsidiaries	5,074,882	11,382,751	
Administrative expenses	(1,343,528)	(1,070,000)	
	25,284,549	12,709,502	
Equity in earnings of associated companies and minority investments exceeding 20%	51,673,632	62,373,102	
Interest expense — net	(96,796,234)	(79,599,819)	
Sundry income (expense) — net	40,273,340	(13,701,363)	
Non-products and services' income (loss)	20,435,287	(18,218,578)	
Income Before Provision for Taxes on Income	1,095,976,074	1,119,970,744	
Provision for Taxes on Income	475,300,000	528,500,000	
Income Before Minority Interests	620,676,074	591,470,744	
Minority Interests' Share in Income	5,013,611	4,085,129	
Income Before Extraordinary Items and Cumulative Effect of Change in Accounting	615,662,463	587,385,615	
Extraordinary Items — Tax benefits of operating loss carryforwards		11,721,809	
Cumulative Effect of Change in Accounting		(41,650,206)	
Net Income	\$ 615,662,463	\$ 557,457,218	
Earnings per Share			
Income before extraordinary items and cumulative effect of change in accounting	\$6.65	\$6.35	
Extraordinary items .....		.13	
Cumulative effect of change in accounting		(.45)	
Net Income	\$6.65	\$6.03	

See Accounting Principles and Notes to Financial Statements

Consolidated Balance Sheet

28

	December 31	
ASSETS	1975	1974
Current Assets		
Cash	\$ 25,097,234	\$ 30,037,293
Marketable securities and interest-bearing deposits (at cost — approximately market)	349,819,456	393,306,172
Accounts and notes receivable:		
Trade, less allowance for doubtful receivables (1975, \$39,244,744; 1974, \$39,951,636)	754,735,444	707,959,262
Miscellaneous	242,686,405	263,832,844
Deferred income tax benefits	70,746,846	65,963,636
Inventories:		
Finished and in process	519,476,181	447,866,532
Materials and supplies	283,079,852	274,018,578
	<u>2,245,641,418</u>	<u>2,182,984,317</u>
Investments		
Capital stock — at cost plus equity in accumulated earnings (less reserves — 1975, \$4,157,316; 1974, \$4,434,674)		
Banking and insurance subsidiaries	60,796,278	60,044,661
Associated companies (50% owned)	260,942,559	239,239,226
Other	74,179,496	56,506,016
Sundry — at cost (less reserves — 1975, \$2,192,028; 1974, \$2,730,719)	29,301,552	31,403,978
Noncurrent receivables (less reserves — 1975, \$7,598,268; 1974, \$10,205,496)	121,305,324	117,752,033
	<u>546,525,209</u>	<u>504,945,914</u>
Plant Properties	4,933,165,822	4,081,774,393
Less — Accumulated depreciation	2,146,104,313	1,848,558,902
	<u>2,787,061,509</u>	<u>2,233,215,491</u>
Unexpended Pollution Control Funds	<u>98,538,901</u>	<u>20,584,139</u>
Goodwill	<u>84,467,074</u>	<u>84,893,007</u>
Deferred Charges and Other Assets	<u>84,497,193</u>	<u>87,691,304</u>
TOTAL	\$5,846,731,304	\$5,114,314,172

Consolidated Balance Sheet

LIABILITIES	December 31		29
	1975	1974	
Current Liabilities			
Notes payable	\$ 268,555,708	\$ 220,683,569	
Long-term debt due within one year	76,694,456	47,675,274	
Accounts payable	544,496,606	581,999,665	
United States and foreign taxes on income	224,502,007	380,133,691	
Accrued and other current liabilities	368,635,365	340,075,582	
	<u>1,482,884,142</u>	<u>1,570,567,781</u>	
 Long-Term Debt	 <u>1,563,218,709</u>	 <u>1,304,893,493</u>	
 Other Liabilities and Reserves			
Minority interests in subsidiary companies	44,120,592	40,413,008	
Deferred employee benefits	40,973,833	35,573,662	
Deferred investment grants	1,582,183	4,721,581	
Deferred income taxes	258,395,665	180,068,411	
Loss on foreign investments	5,000,000	5,000,000	
	<u>350,072,273</u>	<u>265,776,662</u>	
 Stockholders' Equity			
Common stock	492,239,386	488,751,574	
Capital surplus	384,959,169	349,658,994	
Retained earnings	1,763,793,403	1,288,065,661	
	<u>2,640,991,958</u>	<u>2,126,476,229</u>	
 Less — Treasury stock at cost	 <u>190,435,778</u>	 <u>153,399,993</u>	
	<u>2,450,556,180</u>	<u>1,973,076,236</u>	
 TOTAL	 <u>\$5,846,731,304</u>	 <u>\$5,114,314,172</u>	

Consolidated Statement of Capital Surplus

30

	Year Ended December 31	
	1975	1974
Balance at Beginning of the Year	\$ 349,658,994	\$ 321,321,422
Add:		
Excess of selling or market price over par value of common stock issued to employees	30,079,340	20,761,409
Income tax benefit realized from sale of common stock to employees	4,107,501	2,792,970
Excess of face value of debentures over par value of common stock issued on conversion	38,647	53,712
Retirement and reissuance of treasury shares	1,074,687	4,729,481
Balance at End of the Year	<u>\$ 384,959,169</u>	<u>\$ 349,658,994</u>

Consolidated Statement of Retained Earnings

	Year Ended December 31	
	1975	1974
Balance at Beginning of the Year	\$1,288,065,661	\$ 843,475,141
Add (Deduct):		
Net income	615,662,463	557,457,218
Adjustment related to consolidation of subsidiary companies	288,804	148,096
Retirement of treasury shares	(1,249,286)	(1,940,450)
Cash dividends declared	<u>(138,974,239)</u>	<u>(111,074,344)</u>
Balance at End of the Year	<u>\$1,763,793,403</u>	<u>\$1,288,065,661</u>

See Accounting Principles and Notes to Financial Statements

Consolidated Statement of Changes in Financial Position

	Year Ended December 31 (In thousands)		31
	1975	1974	
Source of Working Capital			
Net income before extraordinary items	\$ 615,662	\$ 587,386	
Charges (credits) to income not involving working capital:			
Depreciation	347,428	327,235	
Equity in net income of non-consolidated companies, less dividends received	(39,831)	(61,879)	
Deferred income taxes	78,327	135,863	
Other—net	1,824	3,953	
Proceeds from sale of investments, less gains reflected in net income	4,543	19,039	
Provided from operations	1,007,953	1,011,597	
Extraordinary items		10,969	
Issuance of long-term debentures	225,000	29,869	
Pollution control bonds—net of unexpended funds	19,570	9,250	
Increase in other long-term debt		8,944	
Sale of common stock to employees	37,659	26,616	
Increase in other liabilities and reserves	5,909	35,992	
Decrease in deferred charges	3,217		
Disposal of plant property and sundry	20,904	26,215	
	<u>1,320,212</u>	<u>1,159,452</u>	
Use of Working Capital			
New property, plant and equipment	921,471	870,048	
Cash dividends	138,974	111,074	
Purchase of treasury stock	38,790	35,360	
Decrease in long-term debt	64,520		
Increase in noncurrent investments	6,116	32,635	
Increase in deferred charges and other outlays		42,130	
Acquisition of subsidiaries and purchase of minority interests		10,699	
	<u>1,169,871</u>	<u>1,101,946</u>	
Increase in Working Capital	<u>\$ 150,341</u>	<u>\$ 57,506</u>	
Increase (Decrease) in Current Assets			
Cash and marketable securities	\$ (48,427)	\$ 105,661	
Receivables	25,630	248,899	
Deferred taxes	4,783	44,042	
Inventories	80,671	224,355	
Decrease (Increase) in Current Liabilities			
Notes payable and current portion of long-term debt	(76,891)	(15,399)	
Accounts payable	37,502	(227,224)	
Income taxes and accruals	127,073	(322,828)	
Increase in Working Capital	<u>\$ 150,341</u>	<u>\$ 57,506</u>	

See Accounting Principles and Notes to Financial Statements

Accounting Principles

32 Consolidation The accompanying consolidated statements include the assets, liabilities, revenues and expenses of all significant subsidiaries except for a bank and insurance company. Because of the nature of their operations, the accounts of the bank and insurance company are not consolidated. However, their earnings are included in consolidated net income under the equity method of accounting.

Non-Consolidated Equity Investments Investments in companies which are 20%-50% owned are carried on the equity basis. Marketable equity securities are carried at the lower of cost or market. Other investments are carried at cost less reserves.

Translation of Foreign Currencies Property in foreign countries is translated into United States dollars at the exchange rates which prevailed at the dates the assets were acquired. Other assets and liabilities are translated generally at current rates of exchange. Revenues and expenses are translated at the average exchange rates for the year, except that depreciation reflects the historical rate. Unrealized losses on forward exchange contracts are recognized currently while gains are recorded at maturity. All exchange gains or losses in developing countries (principally Latin America) are credited or charged to income currently. In developed countries, net gains or losses on translation of long-term debt, net of losses or gains arising from forward contracts and from the translation of assets and other liabilities, are deferred and amortized over the life of the debt.

Inventories Inventories are stated at cost, which is less than market value. Cost is determined on the last-in, first-out basis, except for operating supplies, which are carried on the first-in, first-out basis.

Plant Properties and Depreciation Land, buildings and equipment are carried at cost less accumulated depreciation. Depreciation is based on the estimated service lives of depreciable assets and is provided using the declining balance method.

Expenditures for renewals and betterments are capitalized, and maintenance and repairs are charged to income as incurred.

Fully depreciated assets are retained in the property and depreciation accounts until they are removed from service. In the case of disposals, the assets and related depreciation are removed from the accounts and the net amount, less proceeds from disposal, is charged or credited to income.

Goodwill The excess of the cost of investments in

consolidated subsidiaries over carrying value of assets acquired is shown as goodwill. Goodwill arising since October 1970 is amortized over 40 years. In the opinion of management, goodwill arising prior to that date requires no amortization.

Retirement Plans The Company and certain subsidiaries have plans which provide retirement benefits for eligible employees. The major plan covers substantially all full-time United States employees. The policy is to accrue and fund pension cost as computed by an actuary.

Investment Turnover The profit or loss resulting from the disposal of assets held for investment and resale is segregated in the statement of income as investment turnover.

Taxes on Income and Investment Credits The companies compute and record income taxes currently payable based upon their determination of taxable income which may be different from pretax accounting income. These differences may arise from recording in pretax accounting income transactions which enter into the determination of taxable income in another period. The tax effect of these timing differences is recognized by adjustment currently to the provision for taxes.

Provision is made for income taxes on unremitted earnings of subsidiary and 50%-owned companies to the extent that such earnings are determined not to be permanently invested, and on the income of certain subsidiaries which is fully taxed in the United States as earned. Income taxes are provided on the undistributed income of 20%-49% owned companies at the time the Company records its equity in such earnings.

A portion of the taxes due on foreign operations conducted through a domestic international sales corporation (DISC) are deferrable under U.S. tax rules. However, it is the practice of the Company to fully accrue such taxes on a current basis.

Laws governing the determination of United States and certain foreign income taxes provide for investment credits which are allowable generally upon completion of qualified facilities. Such credits are reflected as a reduction of income tax expense on the flow-through basis in the year in which they are earned.

In addition to tax credits, certain foreign countries provide investment incentives in the form of tax-free grants which offset development and startup expenses of new facilities to which they relate. The excess, if any, of grants earned over expenses incurred is amortized over the life of the facilities.

Notes to Financial Statements

A. Inventories The amount of the reserve required to reduce FIFO inventories to the LIFO basis at December 31, 1975 and 1974 was \$276 million and \$271 million, respectively. The adoption of the LIFO basis in 1974 reduced earnings per share by \$1.53.

B. Investments The Company's equity in the net assets of investments accounted for by the equity method approximates the carrying amount of such investments. Dividends received from the companies were \$14.0 million in 1975 and \$16.8 million in 1974.

C. Marketable Equity Securities Sundry investments at December 31, 1975 included marketable equity securities, at cost, in the amount of \$15.1 million. The market value of these securities exceeded cost by \$12.7 million, after deducting \$3.0 million of unrealized losses.

D. Plant Properties Plant properties consisted of the following:

	(In thousands) December 31	
	1975	1974
Land	\$ 94,036	\$ 81,542
Land and waterway improvements ..	109,163	93,476
Buildings	409,520	368,576
Machinery and other equipment	3,281,776	2,769,059
Wells and brine systems	100,119	68,214
Furniture and fixtures	62,363	48,919
Other	162,409	165,029
Construction in progress	713,780	486,959
Total	4,933,166	4,081,774
Less—accumulated depreciation ...	2,146,104	1,848,559
Net	<u>\$2,787,062</u>	<u>\$2,233,215</u>

The Company changed in 1974 to the declining balance method of providing depreciation on overseas facilities. The cumulative effect to December 31, 1973 of retroactive application of the change resulted in a 1974 charge to income of \$41.7 million after related taxes of \$38.7 million, or \$.45 per share.

E. Leased Properties Minimum rental commitments under non-cancelable leases, substantially all of which pertain to manufacturing facilities and transportation equipment, are as follows:

1976	\$60,061,000	1981-1985 ..	\$105,300,000
1977	46,748,000	1986-1990 ...	64,879,000
1978	39,063,000	1991-1995 ...	34,758,000
1979	30,682,000	After 1995 ...	18,578,000
1980	27,705,000		

Rental payments charged to expense in 1975 and 1974 were \$92.8 and \$78.4 million, respectively, including \$30.4 and \$26.4 million relating to non-capitalized financing leases.

If the financing leases were capitalized and if applicable straight line depreciation and imputed interest were substituted for rentals, the effect on net income would not be material.

F. Unexpended Pollution Control Funds Proceeds from the sale of pollution control bonds by various local municipalities are deposited with the respective trustees pending reimbursement to the Company for qualified expenditures. These funds are restricted to the use for which they were intended. The unpaid liability is included in long-term debt (See Note G).

G. Long-Term Debt and Available Credit Facilities

Details of long-term debt due after one year were as follows:

	(In thousands) December 31	
	1975	1974
Promissory notes:		
4.50%, final maturity 1990	\$ 90,000	\$ 95,000
5.00%, final maturity 1991	76,000	80,000
Debentures:		
4.35%, final maturity 1988	60,768	66,960
6.70%, final maturity 1998	88,000	92,000
7.75%, final maturity 1999	91,882	96,000
8.875%, final maturity 2000	144,000	150,000
8.90%, final maturity 2000	144,000	150,000
7.40%, final maturity 2002	100,000	100,000
7.625%, final maturity 2003	100,000	100,000
8.50%, final maturity 2005	225,000	
Bonds:		
8.50%, final maturity 1976, Deutsche mark		41,494
5.75%, final maturity 1980, Swiss franc	22,901	23,622
6.25%, final maturity 1986, Swiss franc	38,168	39,370
6.25%, final maturity 1988, Swiss franc	30,534	31,496
8.50%, final maturity 1989, Swiss franc	22,901	23,622
Obligations arising in connection with industrial revenue pollution control bonds (various rates and maturities)	140,525	43,000
Other (various rates and maturities):		
Foreign currency loans	104,656	107,848
Dollar loans	84,788	65,504
	<u>1,564,123</u>	<u>1,305,916</u>
Less unamortized debt discount	904	1,023
Total	<u>\$1,563,219</u>	<u>\$1,304,893</u>

Notes to Financial Statements

34 The debentures purchased and held for future sinking fund requirements, which were deducted from the amounts shown above, were \$24.4 million and \$10.0 million, respectively, at December 31, 1975 and 1974.

Installments (stated in millions) due on long-term debt in the five years after 1975 are: 1976, \$76.7; 1977, \$54.4; 1978, \$60.4; 1979, \$97.0; 1980, \$75.8.

The Company had approximately \$360 million of committed credit unused and available at December 31, 1975 under agreements with various United States and Canadian banks which require retention of average cash balances aggregating approximately \$39 million. These requirements were satisfied by balances maintained for normal business operations.

Other unused committed credit included \$110 million under various revolving credit agreements with foreign banks, and approximately 800 million Deutsche marks under a one billion Deutsche mark agreement with a group of major German banks.

In January 1976, the Company sold debentures aggregating \$200 million to provide additional funds for future plant expansions and working capital requirements. The debentures, which bear interest at 8.50%, are due January 15, 2006.

H. Stockholders' Equity At December 31, 1975 and 1974, authorized capital stock consisted of 200,000,000 common shares and 25,000,000 preferred shares of \$5 and \$1 par per share, respectively. No preferred shares have been issued. Changes in the number and amount of issued shares of common stock were:

	Shares	(In thousands) Amount
Issued January 1, 1974	97,133,834	\$485,669
Sold to employees	612,232	3,061
Conversion of debentures	4,249	21
Issued December 31, 1974	97,750,315	\$488,751
Sold to employees	694,501	3,473
Conversion of debentures	3,061	15
Issued December 31, 1975	98,447,877	\$492,239

The number of treasury shares held at December 31, 1975 and 1974 was 5,770,517 and 5,327,595, respectively.

The Company's Award Plan permits the granting, during the ten-year period ending May 1979 of 1,050,000 shares of

Restricted or Deferred Stock, or a combination thereof, to selected employees in lieu of cash for services. Deferred stock awarded in 1975 and 1974 was 2,767 and 11,152 shares, respectively; no restricted stock was issued. At December 31, 1975, there were 905,750 shares available for grant. The Plan also provides for the granting of Dividend Units. Each Unit represents the right to receive for a specified period cash payments equivalent in value to cash dividends paid during such period on one share of common stock. Dividend Units granted and available for grant, respectively, were 201,980 and 548,020 at December 31, 1975 and 1974. Other plans for granting to officers and key employees options to purchase common stock at the fair market value at date of grant were authorized in 1967 and 1972. Changes in the number of shares optioned under the two plans were:

	1975	1974
Outstanding January 1	1,139,239	1,087,884
Granted	358,625	281,070
Exercised	(283,754)	(227,815)
Expired or terminated	(1,140)	(1,900)
Outstanding December 31	1,212,970	1,139,239
Available for grant December 31	142,125	499,610
Price range on outstanding options at December 31	\$33.65 to \$88.50	\$20.48 to \$58.62

A management incentive plan provides for granting to key employees, including officers and directors, incentive awards which are related to consolidated net income. Awards may be made in cash, Dividend Units, Deferred Stock and Restricted Stock, or a combination thereof. The aggregate amounts charged to expense under this plan in 1975 and 1974 were \$2,480,000 and \$2,105,000, respectively.

The Company made offerings of common stock to its employees in 1975 and 1974 at prices of \$68.75 and \$52.00 a share, respectively, payable generally through payroll deductions. There were unfilled subscriptions for 342,387 and 379,736 shares, respectively, at December 31, 1975 and 1974. Unfilled subscriptions may be cancelled at the option of the employee. Partial payments on these subscriptions aggregating \$15,360,315 and \$12,761,175 at December 31, 1975 and 1974, respectively, were included in current liabilities.

In computing earnings per share, no adjustment was made for common shares issuable under stock purchase and option plans because there would be no material dilutive effect.

Notes to Financial Statements

I. Taxes on Income The provision for taxes on income consisted of:

	(In millions)			1974
	1975			
	Current	Deferred	Total	Total
United States:				
Federal	\$268.2	\$62.2	\$330.4	\$321.9
State and local	24.1		24.1	19.8
Foreign	109.7	11.1	120.8	186.8
	<u>\$402.0</u>	<u>\$73.3</u>	<u>\$475.3</u>	<u>\$528.5</u>

The current tax provision was reduced by investment credits of \$31.6 million in 1975 and \$14.1 million in 1974.

Principal events giving rise to deferred tax provisions were:

	(In millions)	
	1975	1974
Excess of depreciation claimed for tax purposes over book depreciation	\$18.8	\$23.5
Provision for doubtful accounts and other losses in excess of those allowed for tax	(3.4)	(6.9)
Tax on undistributed earnings of foreign subsidiaries deemed not to be permanently invested	12.7	14.6
Tax provision on income of export companies deferred under U.S. income tax laws:		
— current	32.8	23.0
— prior years		38.0
Tax on intercompany profit eliminated in consolidation	(3.4)	(13.3)
Application of LIFO method in countries where it is not allowed for tax purposes	1.1	(19.7)
Other	14.7	(3.2)
	<u>\$73.3</u>	<u>\$56.0</u>

Effective consolidated tax rates for 1975 and 1974 were 43.4% and 47.2%, respectively. Major differences between these rates and the United States statutory rate were:

	Percent	
	1975	1974
Statutory rate	48.0	48.0
U.S. investment credits	(2.8)	(1.3)
Taxes on income from foreign sales at rates different from U.S. statutory rate—1974 included additional provision of \$38 million on earnings of export companies applicable to prior years	(.9)	3.9
Untaxed equity in income of companies whose accounts are not consolidated	(2.1)	(2.8)
State and local income tax (net of federal tax)	1.1	.9
Other .....	.1	(1.5)
Effective rate	<u>43.4</u>	<u>47.2</u>

Unremitted earnings of subsidiary and 50%-owned companies which are deemed to be permanently invested amounted to approximately \$549 million and \$460 million at December 31, 1975 and 1974, respectively.

Income tax returns filed in the United States for all years through 1971 have been examined by the Internal Revenue Service. Resolution of unresolved issues is not expected to have a material effect on income.

J. Retirement Plans The cost of retirement plans in 1975 and 1974 was \$65,708,000 and \$65,406,000, respectively. Cost in 1974 included a special one-time award of \$11,668,000. The actuarially determined value of vested benefits exceeded pension fund assets, at market, by \$39,462,000 for the major plan as of December 31, 1975. Payments from the pension fund to beneficiaries of the Company's major plan in 1975 and 1974 were \$14,526,000 and \$12,114,000, respectively.

K. Foreign Exchange Deferred exchange losses (gains) in developed countries and related amortization are shown below:

	(In thousands)	
	1975	1974
Exchange losses deferred at beginning of year	\$24,516	\$ 1,495
Deferred during the year	(4,119)	31,997
Total	20,397	33,492
Amortization	2,031	8,976
Exchange losses deferred at end of year	<u>\$18,366</u>	<u>\$24,516</u>

In addition to the above amortization, income in 1975 and 1974 was charged with \$1,247,000 and \$15,317,000, respectively, for net losses on translation of financial statements stated in currencies of developing countries.

There were no unrecorded gains on forward contracts at December 31, 1975 and 1974.

The Company expects to conform its practice in translating foreign currency financial statements to those prescribed in Statement No. 8 of the Financial Accounting Standards Board in 1976. The change is not expected to have a material impact on the accompanying financial statements.

L. Contingent Liabilities Suits have been started against the Company and certain subsidiaries because of alleged product damage and other claims. All suits are being contested and the amount of uninsured liability thereunder is considered to be adequately covered by provisions made.

Notes to Financial Statements

36 M. Quarterly Statistics Quarterly results (unaudited) were as follows:

<u>1975</u>	<u>1st</u> <u>Quarter</u>	<u>2nd</u> <u>Quarter</u>	<u>3rd</u> <u>Quarter</u>	<u>4th</u> <u>Quarter</u>	<u>Year</u>
Net sales (in millions)	\$1,138.0	\$1,197.4	\$1,274.5	\$1,278.2	\$4,888.1
Products and services operating income (in millions)	223.1	256.2	311.8	284.4	1,075.5
Net income (in millions)	125.9	143.3	180.2	166.3	615.7
Earnings per share (in dollars)	1.36	1.55	1.94	1.80	6.65
Cash dividends paid per share (in dollars) . . . . .	.35	.35	.35	.40	1.45
Market price range of common stock on the N. Y. Stock Exchange (in dollars):					
High	78.25	92.88	94.00	95.50	95.50
Low	53.75	72.00	83.63	83.50	53.75

<u>1974</u>					
Net sales (in millions)	\$1,016.6	\$1,325.4	\$1,346.3	\$1,250.2	\$4,938.5
Products and services operating income (in millions)	129.3	335.3	442.1	231.5	1,138.2
Income before extraordinary items and cumulative effect of change in accounting (in millions)	69.9	159.7	234.4	123.4	587.4
Earnings per share on income before extraordinary items and cumulative effect of change in accounting (in dollars)	.76	1.72	2.53	1.34	6.35
Net income (in millions)	69.9	159.7	203.7	124.1	557.4
Earnings per share (in dollars) . . . . .	.76	1.72	2.20	1.35	6.03
Cash dividends paid per share (in dollars) . . . . .	.25	.25	.30	.30	1.10
Market price range of common stock on the N. Y. Stock Exchange (in dollars):					
High	64.00	70.00	69.12	68.50	70.00
Low	50.12	59.38	50.00	49.88	49.88

The first three quarters of 1974 were restated to reflect the change to the LIFO method of valuing inventories which was adopted as of September 30, 1974. Net income for the third quarter of 1974 included the cumulative effect to December 31, 1973 of retroactive application of the change to the declining balance method of providing depreciation on overseas facilities, as described in Note D.

Opinion of Independent Public Accountants

THE DOW CHEMICAL COMPANY

We have examined the consolidated balance sheet of The Dow Chemical Company and its subsidiary companies as of December 31, 1975 and 1974, and the related consolidated statements of income, retained earnings, capital surplus, and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, such financial statements present fairly the financial position of the companies at December 31, 1975 and 1974, and the results of their operations and the changes in

their financial position for the years then ended, in conformity with generally accepted accounting principles consistently applied during the period subsequent to the changes, with which we concur, made as of January 1, 1974, in the method of stating inventories as described in Note A to the financial statements, and in the method of determining depreciation of plant properties located outside the United States and Canada as described in Note D to the financial statements.

Haskins & Sells

Detroit, Michigan, February 20, 1976

Management's Discussion and Analysis of the Consolidated Statement of Income

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Net Sales A comparison of the changes in net sales by product lines for 1975 and 1974 is shown below.

	Percent Increase (Decrease) From Prior Year	
	1975	1974
Chemicals and Metals	5	72
Plastics and Packaging	(14)	66
Bioproducts and Consumer Products	10	19
All product lines	(1)	61

The product mix in each of the lines remained relatively constant throughout the two-year period. In 1975, sales of \$4,888 million were down 1% from the prior year. Unit volume decreased about 10%, or \$500 million, which was almost offset by price increases.

The Chemicals and Metals business was somewhat ahead of the record levels established in 1974. Firming prices counterbalanced the effect of reduced demand in most products. Sales of the Plastics and Packaging lines of business were down markedly in 1975. Economic conditions throughout the world were particularly weak in those sectors in which plastics are used, notably automotive and housing. The decline appeared to have bottomed out in the second half of 1975. Sales growth in 1975 of the Bioproducts and Consumer Products line was limited by price controls and soft market conditions for bulk pharmaceutical chemicals. United States and Canadian sales continued during 1975 the improvement which began in the second quarter. However, recovery in the other geographic areas, particularly Europe, was slower. In 1974, the improvement of 61% in sales represented an increase of \$1.9 billion, of which \$1.7 billion was due to increased selling price and \$200 million was due to additional volume. Price controls enforced by government authorities in many countries were a limiting factor on the sales and related profit performance of the Bioproducts line also in 1974.

Cost of Sales In 1975, cost of sales remained essentially at the same level of the prior year, despite the slight drop in sales. In 1974, cost of sales rose 52%, resulting in part from the adoption of the LIFO method of valuing inventories, as described in Note A. Feedstock and energy costs, which went up sharply in 1974, have continued to rise but at a slower pace in 1975. Expenditures for labor and fringe benefit costs showed a normal increase of 10% in 1975 as compared to an increase of 24% in 1974. Maintenance and repair costs were \$303 million in 1975 and \$286 million in 1974, up 6% and 37%, respectively, reflecting the higher costs of maintaining increased plant facilities. Research and development expenditures were \$167 million in 1975 and \$149 million in 1974, up 13% and 26%, respectively. As a ratio of sales, cost of sales was 69.5% and 68.7% in 1975 and 1974, respectively, versus 72.7% in 1973.

Selling and Administrative Expense

The growth of these expenses, which increased 2% in 1975 and 23% in 1974, is generally consistent with the level of operations. Manpower cost has been a significant factor in the cost rise.

Investment and Financial Profit on investment turnover has shown a somewhat inconsistent pattern over the three-year period. 1975 benefited from a gain of \$20 million on sales of investments outside the United States, and 1973 included \$14 million profit on sales of property held for investment. The fluctuation in earnings of nonconsolidated subsidiaries is related to a Swiss banking subsidiary.

Equity in Earnings of Associated Companies and Minority Investments Exceeding 20%

The Company's equity in the income of companies 20% to 50% owned declined by \$11 million in 1975 reflecting the depressed worldwide business conditions, while it was up by \$19 million in 1974 as those companies experienced strong demand for their products.

Interest Expense — Net Additional borrowings in 1975 and use of funds for expansion of the operations increased interest expense by \$17 million. The benefits realized in 1974 from temporarily investing at higher interest rates funds obtained from long-term borrowing were not available in 1975.

Sundry Income (Expense) — Net

Sundry income increased \$54 million in 1975, due in large part to lower losses on foreign exchange, profit on sale of a foreign investment, increased royalties and lower valuation reserve provisions.

In 1974, the \$10 million increase was caused by higher exchange losses.

Income Tax The change in the 1975 effective tax rate of 43.4% from the 47.2% for 1974 is explained in Note I to the financial statements.

The higher tax rate in 1974 was principally the result of providing additional taxes on earnings of export companies for an amount of \$61 million, of which \$38 million was applicable to prior years.

Net Income Net income in 1974 included an extraordinary credit of \$12 million resulting from the tax benefits of operating loss carryforwards and a charge of \$42 million, net of related taxes of \$39 million, or \$.45 per share, representing the cumulative effect to December 31, 1973 of a change in the method of providing depreciation outside the United States and Canada.

Condensed Comparative Statements

38 Financial Condition (in millions)		1975	1974
	Current Assets:		
	Cash and marketable securities	\$ 374.9	\$ 423.3
	Receivables (less reserves)	1,068.2	1,037.8
	Inventories	802.5	721.9
	Total current assets	2,245.6	2,183.0
	Current Liabilities:		
	Notes payable	268.6	220.7
	Accounts payable and accruals	1,214.3	1,349.8
	Total current liabilities	1,482.9	1,570.5
	Working Capital	762.7	612.5
	Net Property	2,787.0	2,233.2
	Other Assets	814.1	698.1
	Investment (A) plus (B) plus (C)	4,363.8	3,543.8
	Long-Term Indebtedness	1,563.2	1,304.9
	Other Liabilities and Reserves	350.1	265.8
	Total	1,913.3	1,570.7
	Common Stockholders' Equity (D) minus (E)	\$2,450.5	\$1,973.1
Income (in millions)	Net sales of products and services	\$4,888.1	\$4,938.5
	Cost of sales	3,398.9	3,394.7
	Selling and administrative expenses	413.7	405.6
	Products and services operating income	1,075.5	1,138.2
	Investment and sundry income — net	117.3	61.4
	Interest expense	(96.8)	(79.6)
	Non-products and services income (loss)	20.5	(18.2)
	Taxes on income	475.3	528.5
	Minority interests' share in income	5.0	4.1
	Income before extraordinary items and cumulative effect of accounting change	615.7	587.4
	Extraordinary items — net of tax		11.7
	Cumulative effect of accounting change — net of tax		(41.7)
	Net income	615.7	557.4
	Per share of common stock (in dollars) (*):		
	Income before extraordinary items and cumulative effect of accounting change	6.65	6.35
	Extraordinary items .....		.13
	Cumulative effect of accounting change		(.45)
	Net income per share	6.65	6.03
	Pro forma net income assuming the accounting change is applied retroactively		6.48
	Cash dividends declared	1.50	1.20
	Average common shares outstanding (thousands)	92,603	92,511
Other Statistics (in millions)	Additions to property	\$ 921.5	\$ 870.0
	Depreciation	347.4	327.2
	Research and development expenses	167.4	148.7
	Taxes (major)	635.0	615.1
	Wages and salaries paid	810.1	738.7
	Cost of employee benefits	170.9	149.0
	Number of employees at year-end (thousands)	53.1	53.3
	Market closing price on December 31 (in dollars) (*)	91.63	55.00

(*) Adjusted for stock splits and stock dividends

1973	1972	1971	1965	1955
\$ 317.7	\$ 162.5	\$ 106.1	\$ 114.6	\$ 127.5
744.8	595.4	504.3	218.9	64.2
497.5	423.9	395.5	183.6	76.3
1,560.0	1,181.8	1,005.9	517.1	268.0
214.0	269.6	368.3	36.3	32.0
791.1	528.4	423.2	214.3	86.7
1,005.1	798.0	791.5	250.6	118.7
554.9	383.8	214.4	266.5	149.3
1,778.4	1,649.7	1,564.1	750.6	392.8
557.7	481.2	508.7	286.2	23.5
2,891.0	2,514.7	2,287.2	1,303.3	565.6
1,225.9	1,094.9	1,010.1	454.6	243.0
135.6	90.3	80.1	5.8	1.0
1,361.5	1,185.2	1,090.2	460.4	244.0
\$1,529.5	\$1,329.5	\$1,197.0	\$ 842.9	\$ 321.6
\$3,067.9	\$2,403.7	\$2,052.7	\$1,176.2	\$ 470.7
2,229.4	1,760.8	1,517.3	877.9	355.8
330.3	284.9	250.7	121.9	39.4
508.2	358.0	284.7	176.4	75.5
58.3	51.8	43.9	23.1	5.0
(83.4)	(85.8)	(78.5)	(11.3)	(5.9)
(25.1)	(34.0)	(34.6)	11.8	(0.9)
202.6	127.1	91.0	75.0	35.9
9.3	7.9	4.7		0.1
271.2	189.0	154.4	113.2	38.6
4.4	0.2	0.3		
275.6	189.2	154.7	113.2	38.6
2.94	2.07	1.70	1.25	.49
.05				
2.99	2.07	1.70	1.25	.49
2.88	1.98	1.65	1.25	.49
.98	.90	.89	.60	.29
92,114	91,324	90,858	90,645	78,167
\$ 401.7	\$ 359.0	\$ 364.6	\$ 248.3	\$ 49.4
263.1	234.9	218.8	115.6	73.5
118.4	104.7	95.3	66.2	28.5
314.3	218.0	161.8	107.1	46.8
611.6	516.4	464.7	279.6	117.6
101.8	85.4	72.2	25.3	11.5
49.8	48.8	47.8	33.8	22.5
57.50	50.75	39.44	25.71	17.91

Locations and Holdings

40 The Dow Chemical Company 2030 Dow Center Midland, Michigan 48640

UNITED STATES

45 Manufacturing Locations in 22 States*:
Arkansas — Magnolia, Russellville
California — Concord, Costa Mesa, Fresno,
Pittsburg, Torrance, Van Nuys
Colorado — Denver
Connecticut — Gales Ferry, Trumbull
Florida — Miami
Georgia — Dalton, Gainesville
Illinois — Joliet
Indiana — Indianapolis, Zionsville
Iowa — Davenport
Kentucky — Carrollton, Elizabethtown
Louisiana — Breau Bridge, Napoleonville,
Plaquemine
Michigan — Bay City, Hemlock, Ludington,
Midland (2)
Missouri — Cape Girardeau, Pevely
New Jersey — Carteret
New York — New York
North Carolina — Boonville, Greensboro,
Mebane
Ohio — Findlay, Hebron, Ironton
Oklahoma — Tulsa
Pennsylvania — Royersford
South Carolina — Anderson
Texas — Freeport (2), Oyster Creek
Virginia — Williamsburg

Principal Partly Owned Companies:
Cordis Dow Corp., Miami, Florida (50%)
Dow Badische Company, Williamsburg,
Virginia (50%)
Dow Corning Corporation, Midland,
Michigan (50%)
The Kartridg Pak Co., Davenport,
Iowa (50%)
Oasis Pipe Line Company, Houston,
Texas (30%)

EUROPE

31 Manufacturing Locations in 13 Countries*:
Belgium — Seneffe, Tessenderlo
France — Drusenheim, Seclin
Germany — Munich, Rheinmuenster, Stade
Greece — Lavrion
Iran — Tehrān
Italy — Anagni, Brindisi, Cinisello, Garesio,
Livorno, Martellago, Milan
Morocco — El Jadida
The Netherlands — Amsterdam, Roden,
Rotterdam, Terneuzen
Portugal — Lisbon
Spain — Bilbao, Madrid, Tarragona
Sweden — Norrköping
United Kingdom — King's Lynn, England (2);
Barry, Wales (2)
Yugoslavia — Zagreb (under construction)

Principal Partly Owned Companies:
Bank Mendes Gans N.V., Amsterdam, The
Netherlands (40%)
Compagnie des Services Dowell
Schlumberger, Paris, France (50%)
DOKI, Zagreb, Yugoslavia (49%)
Dowell Schlumberger Corporation, London,
England (50%)
Dow Banking Corporation, Zurich,
Switzerland (90%)
Dow Chemical Iberica S.A., Madrid,
Spain (98%)
Gruppo Lepetit S.p.A., Milan, Italy (78%)

LATIN AMERICA

19 Manufacturing Locations in 6 Countries*:
Argentina — Buenos Aires, San Lorenzo
Brazil — Aratu (under construction),
Franco da Rocha (under construction),
Guarujá (2), São Paulo (4)
Chile — Concepción, Santiago (2)
Colombia — Bogotá, Cartagena
Ecuador — Quito
Mexico — Cuernavaca, Mexico City,
San Martín

Principal Partly Owned Companies:
Bio-Ciência/Lavoisier S.A.-Análises
Clínicas, São Paulo, Brazil (49%)
Laboratorios Industriales Farmacéuticos
Ecuatorianos, Quito, Ecuador (59%)
Petroquímica-Dow S.A., Concepción, Chile
(70%)
Pirâmides Brasília S.A. Indústria e
Comércio, São Paulo, Brazil (24%)
Propenasa-Produtos Petroquímicos
Nacionais S.A., Guarujá, Brazil (80%)

CANADA

16 Manufacturing Locations in 4 Provinces*:
Alberta — Fort Saskatchewan, Two Hills
British Columbia — Ladner
Ontario — Arnprior, Cambridge, Cornwall,
Guelph, Kitchener, Mississauga,
Richmond Hills, Sarnia,
Toronto (2), Weston
Quebec — Montreal, Varennes

Principal Partly Owned Companies:
Canadian General-Tower Ltd., Cambridge,
Ontario (49%)
Conn-Chem Ltd., Toronto, Ontario (21%)
Diversey Environmental Products Ltd.,
Mississauga, Ontario (40%)
Iroquois Chemicals Ltd., Cornwall,
Ontario (49%)
Morval-Durofoam Limited, Kitchener,
Ontario (49%)
Wabiskaw Explorations Ltd., Calgary,
Alberta (50%)

PACIFIC

29 Manufacturing Locations in 9 Countries*:
Australia — Altona, Blacktown, Brisbane (2),
Cairns, Mackay, Newcastle, Smithfield
Hong Kong — Hong Kong
India — Bombay, Nira
Indonesia — Medan
Japan — Ageo, Ashigara, Chiba, Hyuga,
Kanuma, Kawasaki (2), Mizushima,
Nobeoka, Sapporo, Suzuka, Totsuka
Korea — Ulsan
Malaysia — Kuala Lumpur
New Zealand — New Plymouth
Thailand — Bangkok (2)

Principal Partly Owned Companies:
Asahi-Dow Limited, Tokyo, Japan (50%)
Consolidated Fertilizers Ltd., Brisbane,
Australia (20%)
Ivon Watkins-Dow Limited, New Plymouth,
New Zealand (51%)
Korea Pacific Chemical Corporation, Seoul,
Korea (50%)
Pacific Chemicals Berhad, Kuala Lumpur,
Malaysia (51%)
Polychem Limited, Bombay, India (25%)

*Includes wholly owned companies and principal partly owned companies

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CLYDE H. BOYD	President, Dow Chemical Europe, S.A.
C. B. BRANCH	President
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J. M. LEATHERS	Executive Vice President, Dow Chemical U.S.A.
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DAVE W. SCHORNSTEIN	President, Dow Chemical Latin America
MACAULEY WHITING	Consultant
G. JAMES WILLIAMS	Financial Vice President

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The Cleveland Trust Company,
The Royal Trust Company, Toronto

Registrars

The Cleveland Trust Company,
Montreal Trust Company, Toronto

Stock Exchange Listings

United States: New York, Midwest, Pacific;
Europe: Amsterdam, Antwerp, Basel, Bern, Brussels, Dusseldorf, Frankfurt, Geneva, Hamburg, Lausanne, London, Zurich;
Canada: Toronto
Asia: Tokyo

Certified Public Accountants

Haskins & Sells

* Retired from the Board of Directors, December 31, 1975.

